

JVC

SERVICE MANUAL

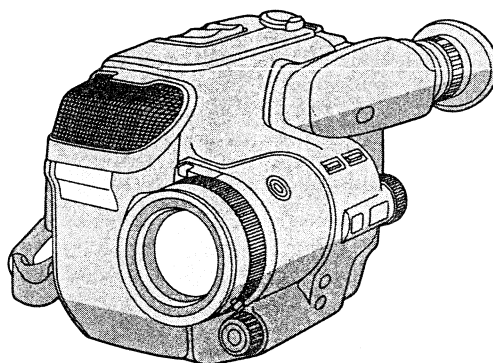
VHS VIDEO MOVIE

GR-SZ1EG/EK

S VHS G VHS
PAL
625

Hi-Fi
STEREO

videomovie
Super VHS



SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SZ1EG)*

Format	: S-VHS/VHS PAL standard
Power source	: DC 6 V $\equiv$
Power consumption	: 9.9 W
Signal system	: PAL-type
Video recording system	: Luminance: FM recording Color: Converted sub-carrier direct recording Conforms to S-VHS standard
Hi-Fi audio recording system	: Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels	: 2 Hi-Fi audio channels 1 normal audio channel
Cassette	: S VHS G / VHS G cassette
Tape speed	(SP) : 23.39 mm/sec (LP) : 11.70 mm/sec
Recording time Max.	(SP) : 45 minutes (with SE-C45 cassette) (LP) : 90 minutes (with SE-C45 cassette)

VIDEO

Output	: 1 Vp-p, 75 ohms, unbalanced (via AV OUT connector)
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AUDIO

Output	: -6 dBs, 1 k-ohm (via AV OUT connector).
Microphone input	: -68 dBs, high impedance, unbalanced with 1.6 $\varnothing$ DC 5 V $\equiv$ DC out terminal

Hi-Fi AUDIO

Wow and flutter	: Less than 0.005% WRMS
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CAMERA

Pick up	: 1/3"-format CCD
Minimum required illumination	: 1 lux (Slow shutter Mode)
Illumination range	: 1 to 100,000 lux
Lens	: 8:1 zoom , f = 6.4 to 52 mm, 11:1 zoom , f = 6.8 to 71 mm, Ultra-Wide , f = 4 mm, F/1.8, with auto iris and auto macro, filter diameter 46 mm Microscope Mode F/15, distance = 92 $\pm$ 2 mm
Viewfinder	: Electronic viewfinder with 0.7" color LCD
White balance	: Full-auto

GENERAL

Operating temperature	: 0° C to +40° C
Operating humidity	: 35% to 80%
Storage temperature	: -20° C to +50° C
Weight	: Approx. 920 g (without lens cap, hand strap, and connector covers)
Dimensions	: 127(W) x 122(H) x 214(D) mm (incl. viewfinder)

AA-V11EG SPECIFICATIONS

Power requirement	: AC 110 to 240 V $\sim$, 50/60 Hz
Power consumption	: 23 W
Output	: DC 8.5 V $\equiv$, 1.3 A (Charge), DC 6.3 V $\equiv$, 1.8 A (VideoMovie)
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 150(W) x 42(H) x 68(D) mm
Weight	: Approx. 350 g

PROVIDEO ACCESSORIES

AC power adapter/battery charger	AA-V11EG
Battery pack	BN-V22U
A/V output cable	
Cable adapter	
S-VIDEO cable	VC-V44U
S-VHS-C cassette	SE-C30
Lithium battery	CR2025
Microscope mode lens extender	
Lens holder	
Remote control unit	

Note: Up to 11 x optical zoom magnification (measured from 8:1 wide, f=6.4 mm, to 10:1 telephoto, f=71 mm); up to 22 x digital zoom magnification.

*Specifications shown are for SP mode unless otherwise specified.
E. & O. E. Design and specifications subject to change without notice.*

NOTE: For a technical description, please refer to Technical Guide VTG86037 GR-SZ1.

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  symbol and shaded (■) parts are critical for safety.

Replace only with specified part numbers.

Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.

Caution for continued protection against fire hazard.

Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:

- 1) Wires covered with PVC tubing
- 2) Double insulated wires
- 3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:

- | | | |
|--------------------|--------------------------------------|------------|
| 1) Insulation Tape | 3) Spacers | 5) Barrier |
| 2) PVC tubing | 4) Insulation sheets for transistors | |

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

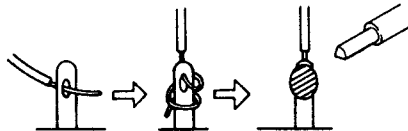


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

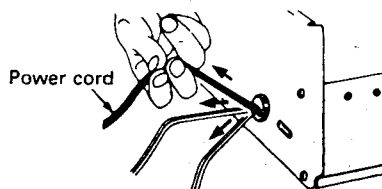


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)

In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

1) **Connector part number :** E03830-001

2) **Required tool :** Connector crimping tool of the proper type which will not damage insulated parts.

3) **Replacement procedure**

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).

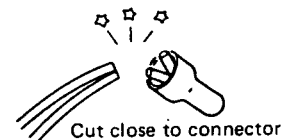


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

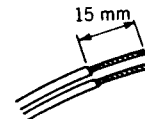


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

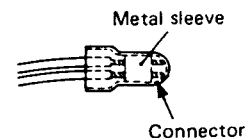


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

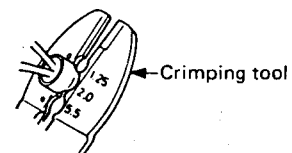


Fig. 6

(5) Check the four points noted in Fig. 7.

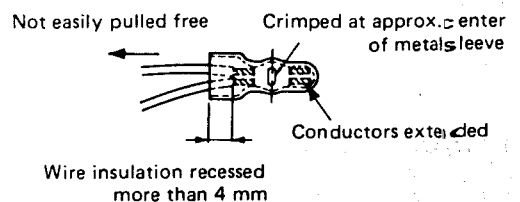


Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

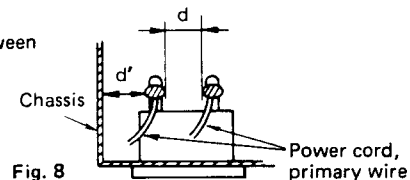
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

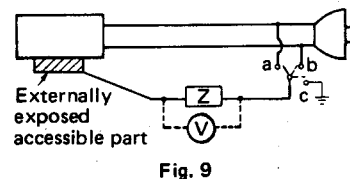


4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method: (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

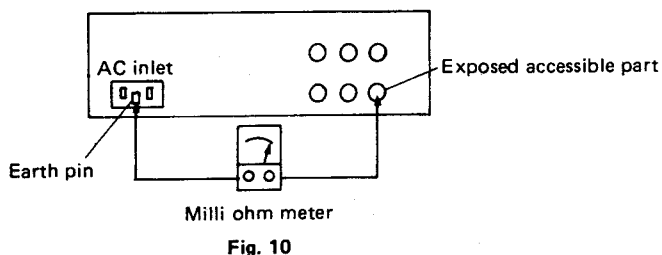


5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega / 500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	—	AC 1 kV 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V	Europe & Australia	$R \geq 10 \text{ M}\Omega / 500 \text{ V DC}$	AC 3 kV 1 minute (Class II)	$d \geq 4 \text{ mm}$
200 to 240 V			AC 1.5 kV 1 minute (Class I)	$d' \geq 8 \text{ mm}$ (Power cord) $d' \geq 6 \text{ mm}$ (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	$1 \text{ k}\Omega$	$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada	$0.15 \mu\text{F}$ and $1.5 \text{ k}\Omega$	$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	Europe & Australia	$2 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
220 to 240 V		$50 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

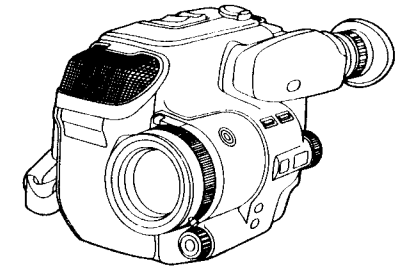
Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

INSTRUCTIONS [EXTRACT]

MAJOR FEATURES

- Multi function (MF) lens
- Microscope mode
- Digital image stabilizer
- Color viewfinder
- Snap shot function
- Cinema mode
- Scene selector dial
- Random Assemble Editing
- Auto head cleaner

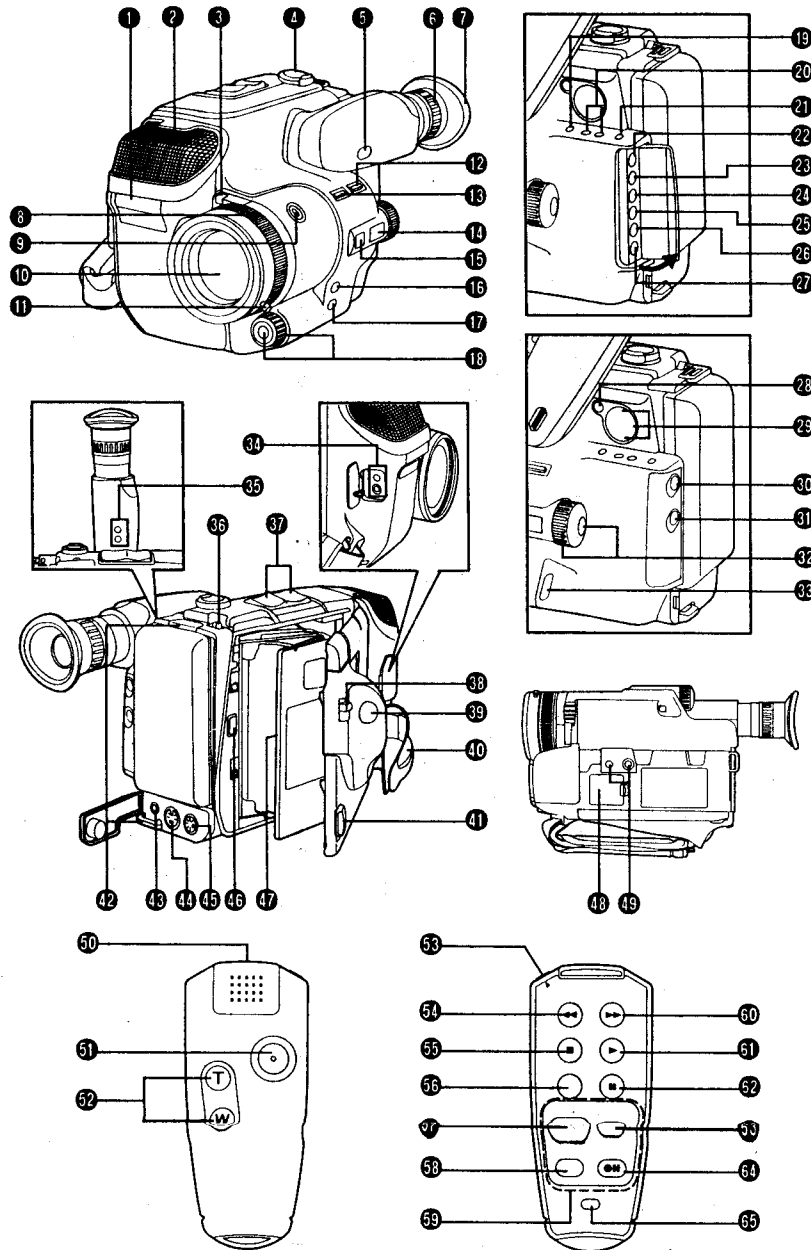


ENGLISH

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This VideoMovie is designed to be used with PAL-type colour television signals. It cannot be used for playback with a television of a different standard. However, live recording and viewfinder playback are possible anywhere. Use the BN-V12U/BN-V22U/BN-V50U/BN-V60U battery packs and, to recharge them, the provided multi-voltage AC power adapter/battery charger. (An appropriate conversion adapter may be necessary to accommodate different designs of AC outlets in different countries.)



CONTROLS AND CONNECTORS

Refer to the diagrams on the front
foldout page.

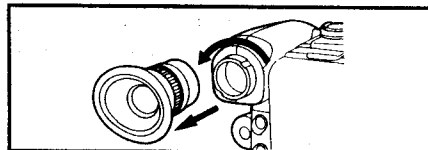
No.	Page
① Infrared beam sensor window	28, 31
② Microphone	
③ Tally lamp	
Lights to show that recording is in progress.	
④ Power switch with LED indicator	
"PLAY" position:	
To use for VCR functions.	
"CAMERA AUTO LOCK" position:	
Setting to this position locks the VideoMovie in the Full	
Auto mode, eliminating the possibility of misoperation by	
accidentally touching the manual operation buttons while	
shooting. It is convenient when asking someone else to	
do the shooting.	
"CAMERA AUTO RELEASE" position:	
Manual operation and access to the many creative	
shooting functions of this VideoMovie is possible.	
⑤ Viewfinder brightness dial	8
⑥ Diopter adjustment ring	8
⑦ Eyepiece	
⑧ Manual power focus ring	15
⑨ Auto/manual FOCUS button	15
⑩ Front lens	16
⑪ Lens release button	17
⑫ D.I. STABILIZER button	20
⑬ DIGITAL ZOOM button	16
⑭ Display window	18
⑮ CINEMA mode button	19
⑯ DISPLAY button	9, 14
⑰ FADER button	19
⑱ IRIS +/- dial and ON/OFF button	20
⑲ Date/time adjust SELECT button	9
⑲ Date/time adjust SET +/- buttons	9
⑲ Display MODE button	14
⑲ FF button	13, 22
⑲ PLAY button	22
⑲ REW button	13, 22
⑲ STOP button	22
⑲ PAUSE button	13, 23
⑲ R.A. EDIT START button	29
⑲ MENU ON/OFF button	10
⑲ Menu controller (SELECT/SET)	10
⑲ RETAKE F button	13
⑲ RETAKE R/Q REVIEW button	13
⑲ SCENE SELECTOR dial and ON/OFF button	18
⑲ SNAP SHOT button	20
⑲ External MIC jack	
⑲ COLOR/CONTRAST Volume (for JVC service personnel)	
⑲ BATTERY RELEASE switch	6
⑲ Power zoom buttons (T/W)	16
⑲ REC LOCK switch	
Convenient power ON/OFF while shooting.	
⑲ Recording Start/Stop button	12
⑲ Grip strap	8
⑲ Cassette door LOCK/OPEN switch	8
⑲ Eyelets for shoulder strap	31
⑲ REMOTE jack	32
⑲ S-OUT connector	
For connection to a television or VCR equipped with an S-	
VIDEO input terminal.	
⑲ AV OUT connector	
Both audio and video signals can be obtained from this	
connector for editing, etc.	

⑲ EJECT button	8
⑲ Cassette holder	8
⑲ Clock battery compartment	9
⑲ Tripod mounting socket	31

Remote control unit

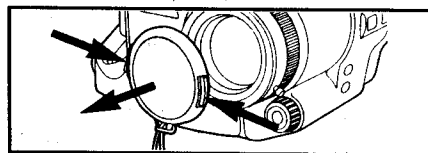
⑲ Infrared beam transmitting window	
⑲ START/STOP button	
⑲ ZOOM (T/W) button	
⑲ PAUSE IN connector	
⑲ REW/Retake (Rewind) button	
⑲ STOP button	
⑲ VCR CTL button	
⑲ IN/OUT button	
⑲ CANCEL button	
⑲ Random Assemble Editing buttons	
⑲ FF/Retake (Forward) button	
⑲ PLAY button	
⑲ PAUSE button	
⑲ ON/OFF button	
⑲ VCR REC STBY button	
⑲ MBR PRESET button	

*In cases where buttons located on the remote control and
the VideoMovie have the same name, their functions will
also be the same.



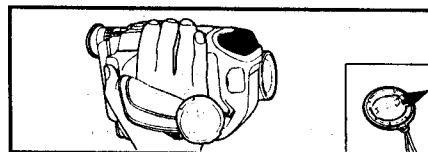
Cleaning the eyepiece

The viewfinder eyepiece can be removed for cleaning. Turn
the eyepiece counterclockwise and pull it out.



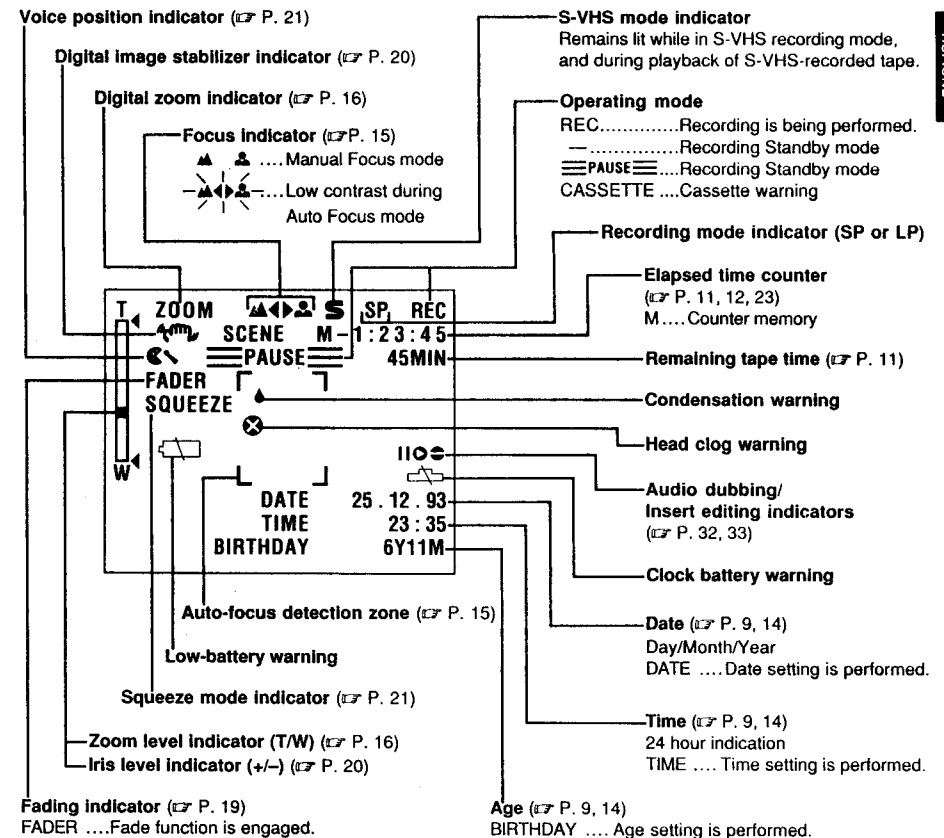
Remove/reattach the lens cap

Remove or reattach the lens cap by pressing the tabs on
either side of the lens cap.



Attaching the lens cap to the hand grip, prevents it swinging
while shooting.

VIEWFINDER INDICATIONS



WARNINGS

LOW-BATTERY WARNING ()

When the battery power is coming to an end, a battery warning indication blinks in the viewfinder. After indication appears, the power turns off automatically. Replace the battery pack with a fully charged one.

CLOCK BATTERY WARNING ()

Blinks when the lithium battery is not in place or exhausted. In this condition, no date/time function is available.

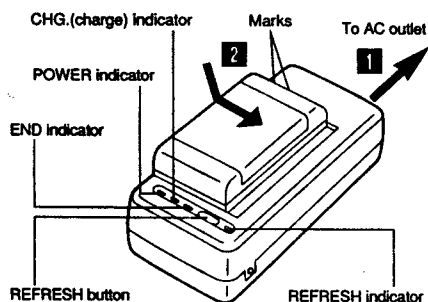
CONDENSATION WARNING ()

Appears when the excessive moisture condensation occurs inside the unit.

CASSETTE WARNING (CASSETTE)

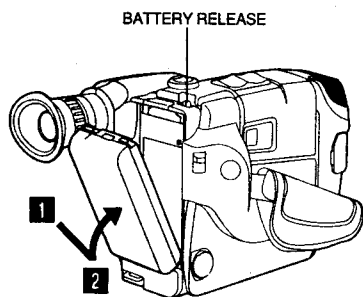
Blinks to warn that no cassette or a cassette without safety tab is loaded.

PREPARATIONS



	Charging time	Discharging time
BN-V12U	approx. 70min.	approx. 210 min.
BN-V22U	approx. 130min.	approx. 420 min.
BN-V50U	approx. 170min.	approx. 510 min.
BN-V60U	approx. 130min.	approx. 420 min.

- The diagrams above indicate the approximate charging and discharging times of battery packs that are fully charged.
- Charging time and discharging time will vary depending on the ambient temperature and the status of the battery pack.



Recording time

BN-V12U	approx. 30 min.
BN-V22U	approx. 65 min.
BN-V50U	approx. 80 min.
BN-V60U	approx. 65 min.

- The recording time per charge is influenced by the duration of the recording standby, frequency of zooming, etc. It is safer to have spare battery packs.

POWER SUPPLY SYSTEM

The convenient 3-way power supply system gives you a choice of the most appropriate power supply unit, depending on the application.

- No function is available without power supply.
- Do not use any power supply other than specified.
- Never attempt to use these power supply units with any equipment other than the VideoMovie.
- The provided AC Adapter/Battery Charger features automatic voltage selection in the AC range from 110 V to 240 V.

WITH BATTERY PACK

The battery pack has been kept in the uncharged state for shipment. Therefore, before use, be sure to charge it.

Charging the battery pack

- Connect the AC power cord to a wall outlet.
 - The power indicator lights.
- Align marks and slide the battery pack in the direction of the arrow until it locks in place.
 - The CHG. indicator lights.
 - When charging has been completed, the END indicator will light.
- Slide the battery pack in the opposite direction of the arrow.

Attaching the battery pack

- Hook-on the battery pack's lower end to the bottom of the VideoMovie's battery receptacle.
- Push the battery pack in until it locks in place.

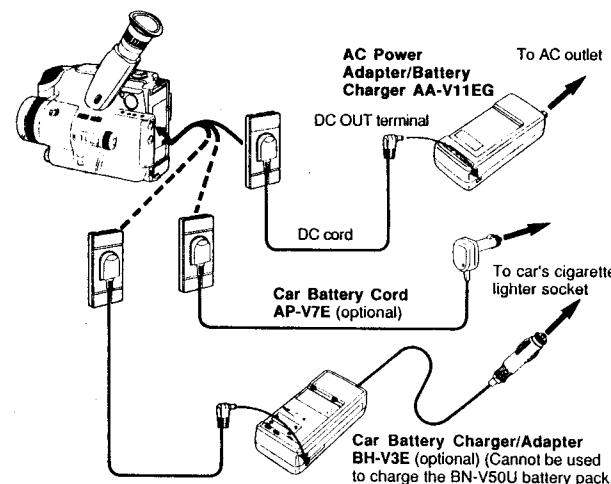
To remove the battery pack:

Pull out the battery pack while sliding BATTERY RELEASE.

Using the REFRESH feature

The REFRESH feature on the AC power adapter allows you to completely discharge the power from the battery pack before charging. After charging the battery pack several times, the actual battery operating time will gradually decrease. For this reason it is recommended to use the REFRESH feature only after every 5 charges.

- Attach the battery pack to the adapter as illustrated above.
- Push REFRESH.
 - The REFRESH indicator will light and discharging will begin.
 - After discharging is completed, the indicator will go off.



WITH AC POWER

Use the AC Power Adapter/Battery Charger.

Note:

This unit can be used with 110 V to 240 V power supplies. Selection is automatic and no adjustment is required.

IN A CAR

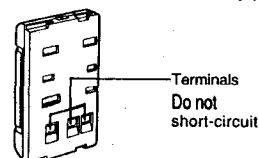
Use the optional BH-V3E Car Battery Charger or AP-V7E Car Battery Cord. Before use, refer to the instruction booklet.

Notes:

- Do not repeatedly recharge a battery pack without fully discharging it. Its service life will decrease. Use the REFRESH feature after every 5 charges.
- Even if a battery pack is fully charged, but is not used, it naturally discharges gradually. Be sure to recharge the battery pack just before using it, or the day before you intend to use it.
- This unit becomes warm due to the flow of electric current inside. Operate it in places having good ventilation. Do not allow it to discharge in a container, such as a bag, etc. Blocking the ventilation causes the temperature inside the unit to rise, possibly resulting in a damaged unit.
- If either recharging or discharging is stopped in the middle of the process, remove the battery pack before unplugging the AC cord.
- This unit incorporates an over-discharging protection circuit; however, immediately remove the battery pack from this unit after discharging has been completed to maintain the battery pack's capacity.
- If used near a radio, the AC power adapter may interfere with reception.
- Be sure to unplug the DC cord before charging or discharging the battery pack.
- Before storing the battery pack for a long period it is recommended to discharge it. To discharge the battery pack, unplug the AC adapter and attach the battery pack before activating the REFRESH function. When activated, the REFRESH indicator will light. When discharge is completed, the indicator will go off.
- The REFRESH feature will not function if the power status of a battery pack is discharged (No power remains).
- When the CHG. indicator is blinking, the battery pack has become hot. Wait for a while for the battery pack to cool. With a just-purchased battery pack, or with a battery pack that has been stored for a long period, the CHG. indicator may not light properly. In such a case, remove and reattach the battery pack again, then do the recharging procedure. The CHG. indicator should light during recharging to indicate, the battery pack is normal. If this is not the result, consult your nearest JVC dealer.

A WORD ON THE EXCLUSIVE BATTERY PACKS

The battery packs are nickel-cadmium batteries and nickel-metal hydride batteries. Be sure to carefully read the caution attached to the battery pack.



Temperature ranges:

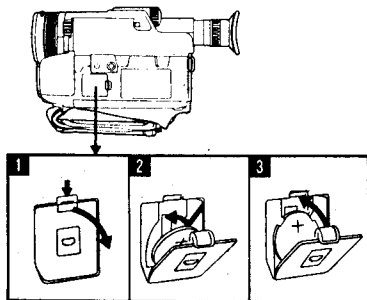
The recharging time is based on room temperature of 20°C. The lower the temperature, the longer the recharging time.

For charging: 10°C to 35°C
For operating: 0°C to 40°C
For storing: -10°C to 30°C

CLOCK (LITHIUM) BATTERY INSERTION

Necessary for clock and date/time/age settings.

- Switch off the unit's power and remove the power supply unit before inserting or removing the clock battery.



- Remove the clock battery compartment cover while pressing the release tab.
- Insert the provided lithium battery with the plus (+) side up by sliding it in the direction of the arrow, and pushing it down.
 - When removing the battery, slide it in the direction of the arrow and lift it up.
- Close the compartment cover until it clicks in place.

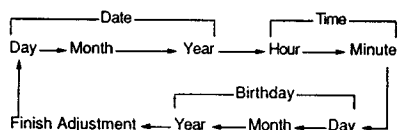
Warning on lithium battery

- Dispose of used battery promptly.
 - Keep away from children.
 - Do not disassemble and do not dispose of it in fire.
- (See Warning on lithium battery, P. 2)

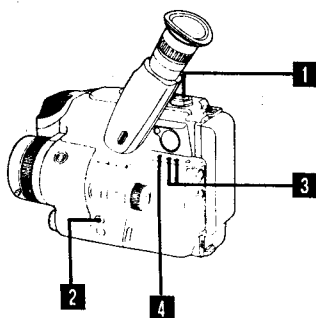
SETTING DATE/TIME/BIRTHDAY

Before adjusting the date, time and birthday for the first time or after replacing the battery.

- Set the power switch to "RELEASE".
- Press DISPLAY. — The day blinks.
- Press DATE/TIME ADJ. SET (+/-) to choose the correct day.
- Press DATE/TIME ADJ. SELECT to enter that setting and move to the next item to change, in the sequence below:



- If DATE/TIME ADJ. SELECT is kept pressed for more than 1.5 seconds, this will call up items rapidly for setting, and stops at the item where the button is released.



- Procedures in steps 1 and 2 allow you to set Date and Time. After the Time has been set, proceed to the Birthday setting.

Setting the "Birthday"

The VideoMovie is provided with a "Birthday" memory function so that once someone's date of birth is entered into memory, the unit can display and record his or her age, automatically calculated to the current dates of the scenes.

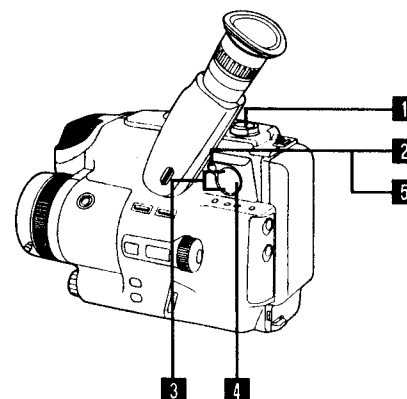
- Age-indication appears as follows:
 - Under one-month-old 1D to 31D
 - Under one-year-old 1M to 11M
 - Under 7-year-old 1Y0M to 6Y11M
 - 7 and over 7-year-old 7Y to 99Y

- Make the settings for the items of BIRTHDAY as described in steps 1 and 2.
- After all items have been set, press DATE/TIME ADJ. SELECT.
 - Blinking stops, and the Date, Time and Age will be displayed.

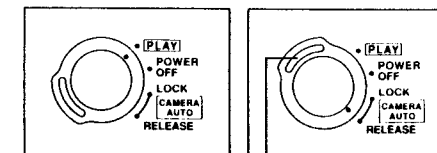
Notes:

- When the Date/Time/Birthday is set for the first time, after inputting the "BIRTHDAY" data, the Date, Time and Age (automatically calculated based on the BIRTHDAY data) appear.
- The clock begins timekeeping when the minute portion stops blinking and remains constantly lit. While the Date and Time are blinking, the clock does not keep time. Be sure to confirm the correct time when setting the Birthday.
- When re-adjusting the data, press DISPLAY to display each item and press DATE/TIME ADJ. SET and DATE/TIME ADJ. SELECT to correct them. After adjustment is completed, the date, time and age appear for about 3 seconds, then the display returns to the mode before correcting.

MENU SYSTEM



Many recording and playback settings are done using the convenient in-viewfinder menu display.



Press down on lock release button while turning to "RELEASE".

To access the Menu

- Set the power switch to "RELEASE" for items related to shooting, and to "PLAY" for items related to playback.
- Press MENU ON/OFF.
 - The menu will appear in the viewfinder.
- Press SELECT ^ / v to move the pointer to the item you want.
- Press SET to change the status.
 - If there is more than one change to make, repeat steps 2 and 3 as necessary.
- Press MENU ON/OFF to end.

Example:

▶ FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
TAPE	▶ 45MIN	30MIN



FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
▶ TAPE	▶ 45MIN	30MIN



FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
▶ TAPE	▶ 45MIN	▶ 30MIN

MENU: SHOOTING

▶ FORMAT	▶ AUTO	VHS
▶ SVHS/VHS		
▶ SP/LP	▶ SP	LP
▶ TAPE	▶ 45MIN	30MIN
▶ COUNTER	M - 1:23:45	
▶ RESET	▶ OFF	ON
▶ VOICE	▶ OFF	ON
▶ POSITION		
▶ SQUEEZE	▶ OFF	ON
▶ MACRO	▶ STD	SPCL

Some items can be set at any time, whenever necessary, however the ones numbered 1-3 below must be set prior to starting recording.

1 SET THE FORMAT

Choose the recording format.

- **AUTO**: Automatically records in Super VHS with an S-VHS-C cassette, and in VHS with a VHS-C cassette.
- **VHS**: For VHS recording whether the cassette is VHS-C or S-VHS-C.

2 SET THE TAPE SPEED

Choose the tape speed that better meets your requirements.

- **SP**: Faster tape speed. Better for dubbing later because higher picture and sound quality are maintained.
- **LP**: Slower tape speed. To record 2 times longer than with SP. For more economical use of tape.

3 SET THE TAPE LENGTH

The tape remaining time is displayed in the viewfinder. Before shooting, choose the setting that corresponds to the length (time) of the tape you are using.

- **45MIN**: When using a SE-C45/EC-45 cassette (45 minutes recording time in SP speed).
- **30MIN**: When using a SE-C30/EC-30 cassette (30 minutes or less recording time in SP speed).

COUNTER RESET: Resets the counter to zero.

VOICE POSITION: A "wind filter" for the microphone (P.21).

SQUEEZE: For "squeezed" recordings to view on wide-screen TVs (P.21).

MACRO: To modify the macro range (P.21).

MENU: PLAYBACK

▶ AUDIO	▶ HIFI	MIX	NOR
▶ COUNTER	M - 1:23:45		
▶ RESET	▶ OFF	ON	
▶ MEMORY	▶ OFF	ON	
▶ AUTO TRACKING	▶ ON	OFF	
▶ REMOTE	▶ ON	OFF	

AUDIO: To choose the audio soundtrack during playback and dubbing/editing.

■ **HiFi**: To listen to the sound recorded on the Hi-Fi audio track.

■ **MIX**: To listen to the sound recorded on both Hi-Fi and longitudinal audio tracks (mixed audio).

■ **NOR**: To listen to the sound recorded on the longitudinal (normal) audio track.

COUNTER RESET: Resets the counter to zero.

COUNTER MEMORY: Enables quick return to the tape's "zero" position; for search and editing (P.23).

AUTO TRACKING: Automatic tracking or manual tracking (P.22). "USE ZOOM SW" appears when set to OFF.

— Tracking can be adjusted using the zoom buttons.

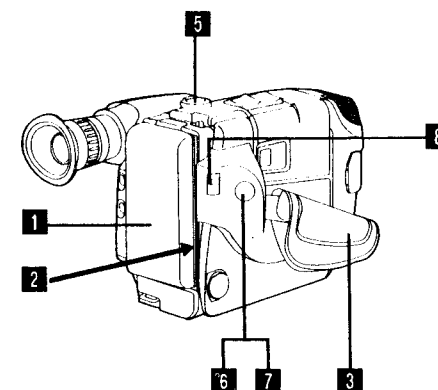
REMOTE: To enable or disable remote control operation.

Notes:

■ Counter Reset item returns to OFF when the SET button is released.

■ For all items other than Counter Reset, any changes made in their status will remain until manually changed back to the original status. Settings do not automatically change back to their original status when the VideoMovie is turned off and on again.

RECORDING OPERATION

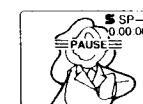


1. Preparations

- 1 Supply power. (P.6.)
- 2 Insert a video cassette correctly. (P.8.)
- 3 Adjust the grip strap. (P.8.)

2. To enter the Record-Standby mode

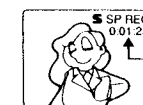
- 4 Set SP/LP as required. (P.11.)
- 5 Set the power switch to "LOCK" or "RELEASE".
 - The power indicator lights.
 - The VideoMovie enters the Record-Standby mode. The aimed-at scene will appear on the viewfinder screen.



"S SP—" or "S LP—" Record-Standby mode indication

3. To shoot the scene

- 6 Determine the composition by referring to the viewfinder image and press the Recording Start/Stop button.



"SP REC" or "LP REC" Recording mode indication
Elapsed time counter

- 7 To stop recording temporarily, press the Recording Start/Stop button again.
 - To restart recording, press the Recording Start/Stop button.
 - Repeating steps 6 and 7 produces assemble recordings.
- 8 To turn the power off and on during shooting, use the conveniently located REC LOCK switch.

AUTO-REHEARSAL

Rehearsal mode is automatically engaged in the following situations:

The power switch is set to the "LOCK" position and;

= no cassette is loaded, or

= a cassette without its safety tab is loaded.

■ Rehearsal mode is not engaged when the power switch is set to the "PLAY" position.

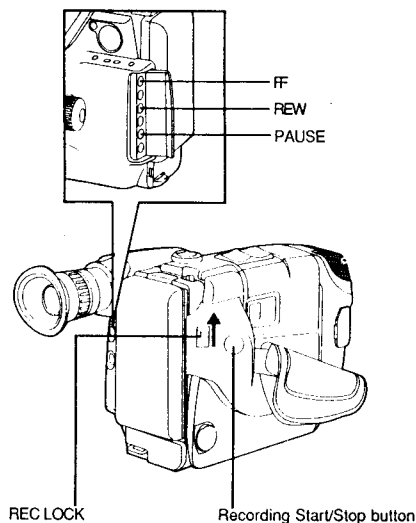
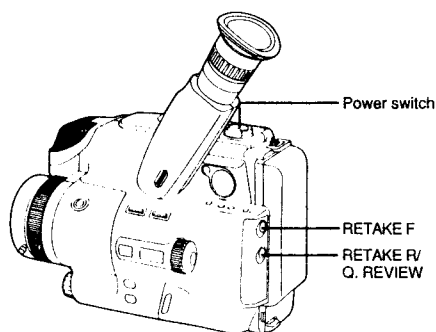
Notes:

■ When a tape reaches its end during recording, the power switch itself off automatically if left for longer than 5 minutes.

■ For a longer pause, set the power switch to off to save power.

■ If the Record-Standby mode continues for longer than about 5 minutes, the unit switches itself off automatically. To restart recording, turn the power on and press the Recording Start/Stop button. This makes clean assembled recordings possible even after a long pause.

■ When digital modes are engaged, there will be a decrease in resolution and the picture will appear coarser than normal.



QUICK REVIEW

If you want to review the end of the last recording for confirmation use this function.

- Keep pressing Q. REVIEW from the Record-Standby mode.

— The tape will be rewound for about 2 seconds of program time and played back automatically for this section, after which it will pause in the Record-Standby mode for the next shot.

Note:

Distortion might occur when playback starts. This is normal.

RETAKE

While recording, you may decide to re-record certain segments. The Retake function is convenient for this.

- 1 Make sure the power switch is set to "RELEASE" and the VideoMovie is in the Record-Standby mode. (If not, engage the mode.)
- 2 Press RETAKE R or F to reach the point where you wish a new recording to start.
 - When RETAKE is released, the camera will enter the Record-Standby mode again.
- 3 Press the Recording Start/Stop button.
 - Recording starts.

Note:

Noise may appear during Retake. This is normal.

ASSEMBLE RECORDING TECHNIQUES

- 1 To replace the battery pack during recording:

- 1 If the battery warning appears in the viewfinder while recording, stop recording by pressing the Recording Start/Stop button and turn off the power by sliding REC LOCK.

- 2 Replace the battery pack with a charged one.
- 3 Slide REC LOCK to turn the unit's power on again.
 - The unit will be in the Record-Standby mode.

- 4 Press the Recording Start/Stop button.
 - Recording starts.

- 2 To record onto a partially recorded tape:

- 1 Set the power switch to "PLAY" and play back the tape to a point where you wish a new recording to start.

- Use REW or FF for faster location.

- 2 Press PAUSE at the located point.
 - The unit will enter the Still mode.

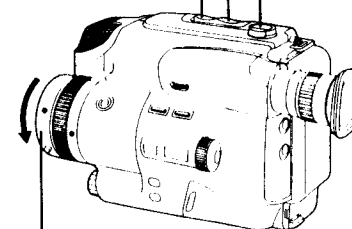
- 3 Set the power switch to "LOCK" or "RELEASE".

- 4 Press the Recording Start/Stop button.
 - Recording starts.

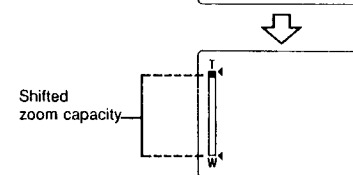
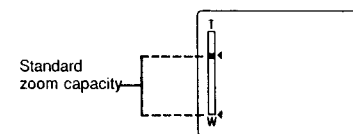
ENGLISH

ADVANCED VIDEOGRAPHY TECHNIQUES (Cont'd)

Power zoom buttons (T/W) "LOCK" or "RELEASE"



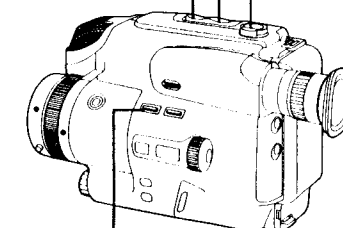
Front lens



Standard zoom capacity

Shifted zoom capacity

Power zoom buttons (T/W) "LOCK" or "RELEASE"



DIGITAL ZOOM

ZOOMING

Pressing the power zoom buttons ("T" and "W") will vary the focal length of the lens. Maximum magnification is approximately 8x.

Procedure:

- Press T : Zooms in on the image, brings it "nearer".
- Press W : Zooms out, "backs away" from the image.

DIGITAL ZOOM

Digital zoom offers double the magnification of normal zoom. (Maximum approx. 16x)

To engage Digital Zoom:

- 1 Press DIGITAL ZOOM.
 - The zoom level in the viewfinder's bar indicator will change to show the added zoom capacity.
- 2 Press T/W to zoom in/out.

To disengage Digital Zoom:

Press DIGITAL ZOOM again.

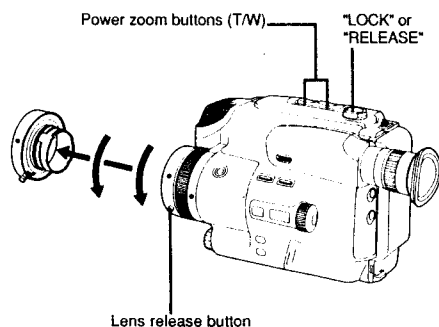
The VideoMovie's front lens can be "shifted" to provide extra zoom capability whenever needed. Maximum magnification is approximately 22x.

Procedure:

- 1 Turn the front lens in the direction of the arrow until it pops out slightly.
 - The zoom bar indicator in the viewfinder will change to show the added zoom capability.
- 2 Press T/W to zoom in/out.
 - When the lens is shifted, the VideoMovie may momentarily go out of focus.

Notes:

- Focusing may become unstable during the zooming-in operation. In this case, first zoom-in in the Recording Standby mode then, after using the manual focusing (P. 15) to hold the focus fixed, zoom in or out in the Record mode.
- When shooting low-contrast subjects in the Zoom-in mode, the VideoMovie automatically zooms out with the low contrast indicator blinking and focus being performed.
- When using shifted zoom at maximum zoom-in position under conditions of very low light, the outside edge of the picture may appear slightly out of focus. This is a normal condition caused by inherent lens aberrations.



ULTRA-WIDE ANGLE

To get more people into group shots, fit more picturesque scenery into vacation footage, etc.

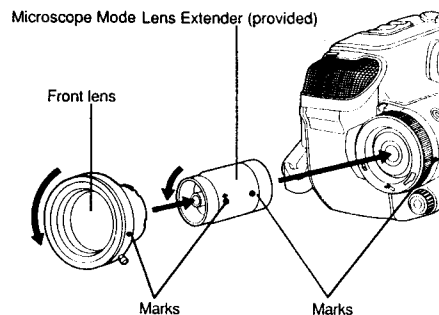
- 1 Turn the front lens in the direction of the arrow until it pops out slightly.
- 2 Press the lens release button while turning the lens in the direction of the arrow. The lens will release.
 - Now you have an ultra-wide angle of view.
 - The Digital Zoom function is engaged automatically; use the zoom buttons to precisely frame the scene you are recording.

To re-attach the front lens:

Align the positioning marks (red dots), push the lens in fully, and turn the lens in the opposite direction until it catches.

Notes:

- Clean the lens with a blower brush or lens cleaning paper before re-attaching it to the VideoMovie.
- In Ultra-Wide, the "warping" that may appear in the picture (especially at the outer edges) is a natural phenomenon and is not a malfunction of the unit.



TV/Monitor Screen Size	Maximum Magnification with Microscope Mode	
	Optical	Digital (2x)
53 cm	97x	195x
71 cm	121x	242x
94 cm	172x	344x

Notes:

- The use of a tripod is recommended.
- When using indoors, additional lighting is recommended.
- The four corners of the picture may appear dark.

MICROSCOPE MODE

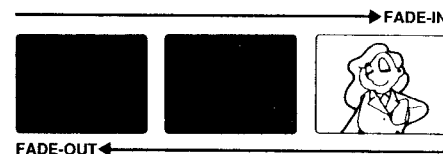
Using the provided Microscope Mode Lens Extender, you can magnify tiny objects to screen-filling size. Something measuring only 1 cm will fill the screen; the image displayed on a 71 cm TV screen will be about 121 times its original size.

- 1 Detach the front lens using the same procedure as Ultra-Wide.
- 2 Align the positioning marks, insert the lens extender until it fits snugly, and turn in the direction of the arrow until it catches.
- 3 Align the positioning marks and attach the front lens to the lens extender as illustrated.
- 4 Focus using the manual focus ring or by changing the distance between the lens and the object being shot.
 - Object must be located approximately 92 mm from the front lens.
 - The Digital Zoom function is engaged automatically; use the zoom buttons to increase magnification up to twice as much. (Max. 242x magnification on a 71 cm TV.)

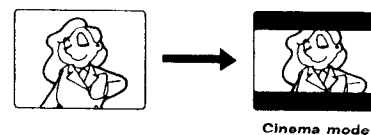
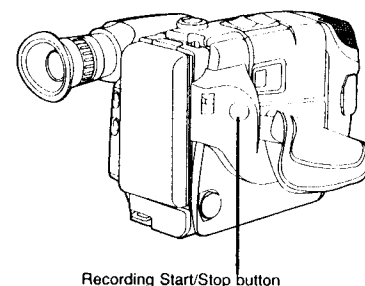
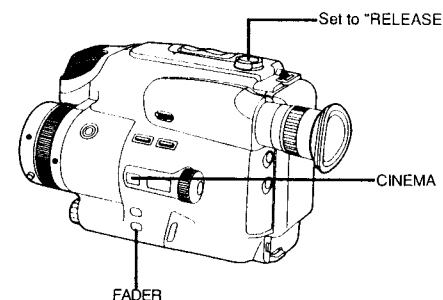
When finished using Microscope Mode:

Detach the front lens and Microscope Mode Lens Extender, and re-attach the front lens to the VideoMovie. Autofocus automatically re-engages.

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Viewfinder



FADER

This VideoMovie incorporates a fader function which allows smooth video and audio fade-in and fade-out to a black blank screen.

(Make sure the power switch is set to RELEASE.)

Fade-in

- 1 Press FADER.
 - The VideoMovie enters into the Fade-Standby mode and "FADER" appears.
- 2 Press the Recording Start/Stop button.
 - The screen immediately becomes blank and recording begins. Fade-in starts at the moment the Recording Start/Stop button is released.
 - If the button is not released, the screen will remain blank and be recorded as long as the button is kept pressed.

Fade-out

- 1 Press FADER in the Recording mode.
 - The VideoMovie enters the Fade-Standby mode and "FADER" appears.
- 2 Press the Recording Start/Stop button.
 - The viewfinder indications start blinking. Fade-out starts and will be completed in a few seconds.
 - When completed, the VideoMovie enters the Record-Standby mode automatically. At this time, if the button is not released, the screen will remain blank and be recorded as long as the button is kept pressed.

Note:

Viewfinder indication "FADER" is not recorded.

CINEMA MODE

This VideoMovie incorporates a "Cinema" mode recording function which allows you to record black bars at the top and bottom of the screen to produce a cinema-like "wide-screen" effect.

(Make sure the power switch is set to RELEASE.)

To engage the Cinema mode:

Press CINEMA.

To restore the normal screen:

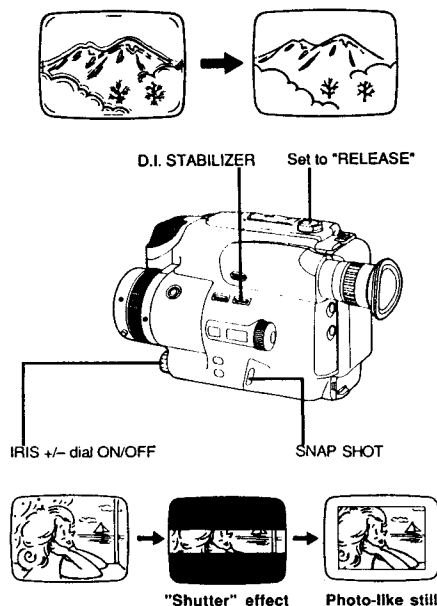
Press CINEMA again.

Notes:

- Cinema mode can be engaged only in the Record-Pause, Record or Rehearsal mode.
- Cinema mode can be used in combination with Scene Selector effects for added variety.

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ADVANCED VIDEOGRAPHY TECHNIQUES (Cont'd)



MANUAL IRIS CONTROL

This VideoMovie offers automatic adjustment of iris to provide the best available picture quality, but this can be overridden in cases when manual control of iris is desirable.

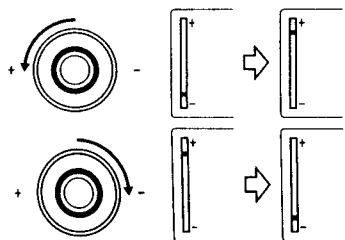
(Make sure the power switch is set to RELEASE.)

For manual iris control:

- 1 Press the AUTO/MANUAL button.
 - A brightness indicator bar will appear in the viewfinder.
- 2 Turn the IRIS +/- dial to adjust picture brightness.

To re-activate automatic iris control:

Press the AUTO/MANUAL button again.



DIGITAL IMAGE STABILIZER

To compensate for the unstable images caused by hand shake (especially noticeable at high zoom ranges), this VideoMovie incorporates a Digital Image Stabilizer.

To engage the Digital Image Stabilizer:

Press D.I. STABILIZER.

- will appear in the viewfinder.

To disengage the Digital Image Stabilizer:

Press D.I. STABILIZER again.

Notes:

- Accurate stabilization may not be possible if hand shake is excessive, or when shooting the following:
 - Subjects with vertical or horizontal stripes
 - Low contrast subjects
 - Dark/dim subjects
 - Subjects with excessive backlighting
 - Scenes with movement in various directions
 - Low contrast backgrounds
- Digital Image Stabilizer (DIS) cannot be used while Strobe, Classic Film or Slow Shutter are activated. When any of these turned on while DIS is already on, the indicator blinks, telling you that DIS is unable to function.

SNAP SHOT MODE

This interesting feature lets you record a white-bordered digital still that looks (and sounds) just like a photograph is being taken. Use it to liven up recordings of parties, weddings, graduations, and so on.

(Make sure the power switch is set to RELEASE.)

To engage the Snap shot mode:

Press SNAP SHOT.

- When engaged during recording, there will be a momentary camera shutter-type blackout, a shutter sound effect is recorded on the tape, and a white-bordered still image is displayed and recorded.
- When engaged during pause, a still image will be displayed, and when the Recording Start/Stop button is pressed, only the "snap shot" will be recorded.
- The displayed "snap shot" remains until the SNAP SHOT button is pressed again.

To disengage the Snap shot mode:

Press SNAP SHOT again.

Turning the power switch to LOCK also disengages this mode.

- Snap shot mode can be used in combination with Scene Selector effects for added variety.
- Date/time/age display will disappear during Snap shot mode.

FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
TAPE	▶ 45MIN	30MIN
COUNTER	M - 1:23:45	
RESET	▶ OFF	ON
▶ VOICE	OFF	▶ ON
POSITION		
SQUEEZE	▶ OFF	ON
MACRO	▶ STD	SPCL

FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
TAPE	▶ 45MIN	30MIN
COUNTER	M - 1:23:45	
RESET	▶ OFF	ON
VOICE	▶ OFF	ON
POSITION		
▶ SQUEEZE	OFF	▶ ON
MACRO	▶ STD	SPCL

FORMAT	▶ AUTO	VHS
SVHS/VHS		
SP/LP	▶ SP	LP
TAPE	▶ 45MIN	30MIN
COUNTER	M - 1:23:45	
RESET	▶ OFF	ON
VOICE	▶ OFF	ON
POSITION		
SQUEEZE	▶ OFF	ON
▶ MACRO	STD	▶ SPCL

VOICE POSITION

When set to ON, this function cuts low-level audio frequencies like the noise sometimes caused by gusts of wind as they hit the microphone.

(Make sure the power switch is set to RELEASE.)

To engage Voice Position:

Set to ON in the viewfinder menu (P.11).

- will appear in the viewfinder.

To disengage Voice Position:

Set to OFF in the viewfinder menu.

16:9 SQUEEZE MODE

When set to ON, this function "squeezes" the picture laterally so they can be viewed (automatically unsqueezed) on wide-screen TVs to become available in the future.

(Make sure the power switch is set to RELEASE.)

To engage Squeeze Mode:

Set to ON in the viewfinder menu (P.11).

- "SQUEEZE" will appear in the viewfinder.
- The picture in the viewfinder (and the recorded image) will be squeezed.

To disengage Squeeze Mode:

Set to OFF in the viewfinder menu.

MACRO ADJUST

When set to SPCL, this function allows the lens to focus only on objects more than 5cm away from the lens.

(Make sure the power switch is set to RELEASE.)

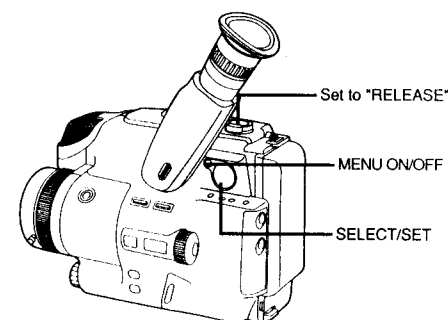
To adjust Macro mode:

Set to SPCL in the viewfinder menu (P.11).

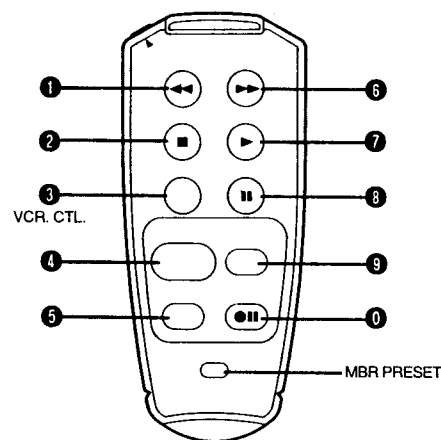
- Autofocus will not acknowledge objects closer than 5cm.

To return Macro to standard:

Set to STD in the viewfinder menu.



EDITING TECHNIQUES



VCR CODE LIST

VCR BRAND NAME	BUTTONS (A) (B)	VCR BRAND NAME	BUTTONS (A) (B)
JVC A	0 1	SHARP	1 3
B	0 2		1 3
C	0 3	TOSHIBA	2 3
PHILIPS	1 0		2 3
	0 1	HITACHI	2 3
	0 2		2 3
	0 3	MITSUBISHI	2 3
	1 0		2 3
	1 1	AKAI	2 3
	1 2		2 3
	1 3	SONY	2 3
FERGUSON	0 4		2 3
	0 5		2 3
	0 6		2 3
	0 7		2 3
BLAUPUNKT	1 3		2 3
PANASONIC	1 3	SANYO	2 3
	1 4		2 3
	1 5		2 3
	2 3		2 3
	2 4	NEC	2 3
	2 5		2 3
SELECO, REX	0 1	THOMSON	0 0
	0 2	TELEFUNKEN	0 0
		SABA	0 0
		NORDMENDE	0 0

■ Although the provided remote control unit is compatible with JVC VCRs, as well as many VCR models manufactured by others, it is possible that the provided remote control will not work with your VCR or may offer limited functions.

MBR (Multi-Brand Remote Control)

The provided MBR unit can operate this VideoMovie from a distance as well as the basic operations (PLAY, STOP, PAUSE, FF, and REW) of your VCR. This remote control unit is useful when dubbing from the VideoMovie to your VCR.

■ Install a battery before using the remote control unit. P.31.

A. To operate the VideoMovie

- 1 Turn the VideoMovie's power ON.
- 2 Press the button corresponding to the function you want to operate.

B. To operate your VCR

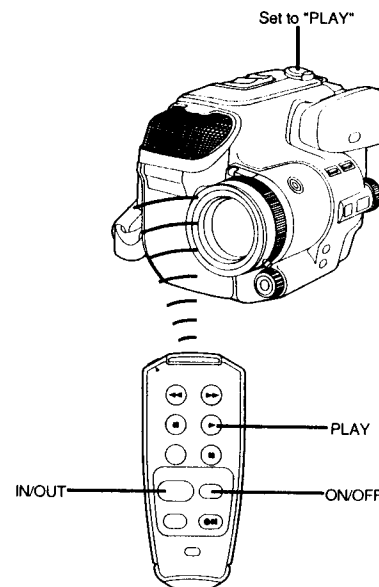
1 To set the remote control unit to correspond to the brand of your VCR:

- 1 Look for the two-digit code of the brand of your VCR in the list.
- 2 While pressing MBR PRESET, press the button that corresponds to digit (A), and then press the button that corresponds to digit (B).
- 3 Release PRESET.

2 To operate the VCR:

- 1 Turn the VCR's power ON.
 - 2 Press the button on the remote control unit corresponding to the function you want to operate while pressing VCR CTL.
- Since the remote control unit has a number of operation codes, determine the appropriate code for operating your VCR by confirming correct VCR operations according to the steps above.

EDITING TECHNIQUES (Cont'd)



	IN	OUT
1	0:00:25	
2		
3		
4		
5		
6		
7		
8		
COUNTER TOTAL	0:00:25	0:00:00

	IN	OUT
1	0:00:25	0:00:38
2	0:00:43	
3		
4		
5		
6		
7		
8		
COUNTER TOTAL	0:00:43	0:00:13

RANDOM ASSEMBLE EDITING

The provided remote control offers a feature called Random Assemble Editing (RAE) which lets you pre-select up to 8 scenes to be automatically edited to a VCR. (The VCR must be controllable using the provided remote control, P.27).

Preparations:

- Connect the VideoMovie and the recording deck as per the diagram on the right (P.29). (Do not connect [A] or [B] yet.)
- VideoMovie: Correctly insert a recorded tape and set the power switch to "PLAY".
- VCR: Turn power on. Insert a recordable tape, and set to the AUX(iliary) mode. Refer to VCR's manual for details.

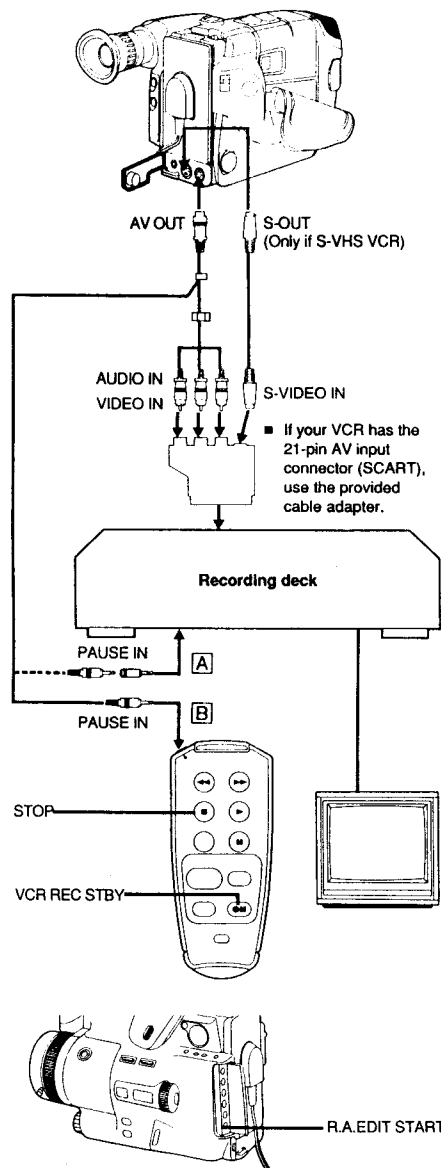
To select up to 8 scenes

- 1 Point the remote control toward the VideoMovie's infrared beam sensor window and press ON/OFF.
 - The RAE counter display will appear in the viewfinder and on the TV screen.
- 2 Press PLAY and look for the first scene you want. (Use FF and REW for faster search.)
- 3 When you find the beginning of a scene you want, press IN/OUT.
 - The in-point's counter reading is registered on the display.
- 4 When you find the end of the scene you want, press IN/OUT again.
 - The out-point's counter reading is registered on the display.
 - The "TOTAL" reading shows the total running time of the edited scenes.
- 5 Specify additional scenes by repeating steps 3 - 4.

Notes:

- For any scene, the out-point must have a counter reading that is at least 1 second after the in-point. An out-point with a counter reading less than or the same as the in-point will not be registered.
- Since the VideoMovie prerolls during Random Assemble Editing, there must be at least 15 seconds worth of recording material prior to any in-point on the playback tape.
- Blank portions of tape cannot be registered as in- or out-points.
- If the search time for an in-point exceeds 5 minutes, the recording deck's Record-Pause mode will be cancelled and editing will not take place.
- Pressing the ON/OFF button will clear all in- and out-points from memory.
- When editing, a slight discrepancy between the counter reading and actual in- and out-points may occur. Please position your in- and out-points with enough leeway so that segments will be recorded in their entirety (not cut off).

(Continued on next page.)



To make corrections

During steps 1 and 2 above, pressing CANCEL will erase the last in- or out-point. Pressing again will erase the point before that, and so on.

For automatic editing to a VCR

A If the recording deck has a Remote Pause terminal, connect the A/V output cable's PAUSE connector to it using the supplied pin adapter.

B If the recording deck does not have a Remote Pause terminal, connect the cable's PAUSE connector to the remote control's PAUSE IN jack.

1 Point the remote control toward the recording deck's infrared sensor window and press VCR REC STBY.

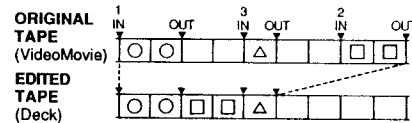
- Be sure that the VCR enters the Record-Pause mode. If not, use the controls on the VCR to enter the Record-Pause mode.

Note:

With some manufacturer's VCR's, pressing VCR REC STBY may not place the VCR into the Record-Pause mode.

2 Press the VideoMovie's RAE START button.

- The function begins automatic editing; all the scenes are copied to the recording deck in the specified order.
- Keep the remote control pointed toward the VCR's remote sensor window.
- The on-screen display remains superimposed while the VideoMovie searches for each scene (the blinking cursor points to the scene number presently being searched), and is not displayed while the scenes are being edited.
- When RAE is finished, the VideoMovie enters the Still mode and the recording deck enters the Record-Pause mode. Press STOP on both units to end Random Assemble Editing.



To dub the entire tape without any edits

To make a duplicate copy of the VideoMovie's tape, perform Random Assemble Editing by specifying only one in-point (and no out-point). RAE will automatically dub everything from that in-point to the end of the tape.

Note:

With some VCR models, there may be noise at the in- or out-points on the edited tape.

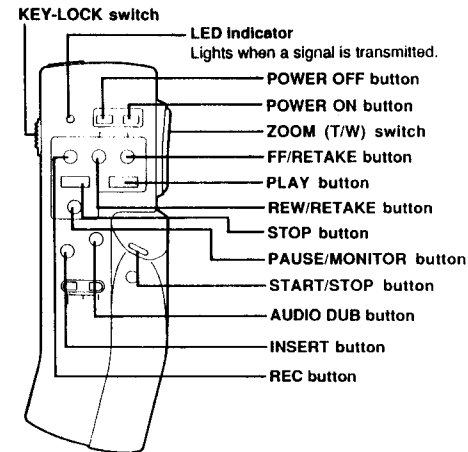
ENGLISH

USING THE OPTIONAL REMOTE CONTROL UNIT

The RM-V20U offers control of the VideoMovie's functions and makes additional editing functions such as Insert Editing and Audio Dubbing possible. When using the RM-V20U, connect the remote cable of RM-V20U to the VideoMovie's REMOTE jack.

*Before use, refer to the instruction booklet.

- Make sure REMOTE is set to ON in the on-screen menu when you wish to use the remote control. (Pre-set to ON when shipped.)
- Functions of the remote control unit's control buttons vary depending on the VideoMovie's power switch position.
- The REC TIME, INTERVAL, and VISS buttons can not be used.



Buttons	Functions	
	With the VideoMovie's power switch set to "LOCK" or "RELEASE"	With the VideoMovie's power switch set to "PLAY"
POWER ON	Power on	
POWER OFF	Power off	
REC	—	—
START/STOP	Functions same as the Recording Start/Stop button of the VideoMovie.	
REW/RETAKE	Retake (Rewind)	Rew/Rew Shuttle Search
FF/RETAKE	Retake (Forward)	FF/FF Shuttle Search
PLAY	—	Playback start
PAUSE/MONITOR	—	Pause
STOP	—	Stop
INSERT	—	Insert Editing
AUDIO DUB	—	Audio Dubbing

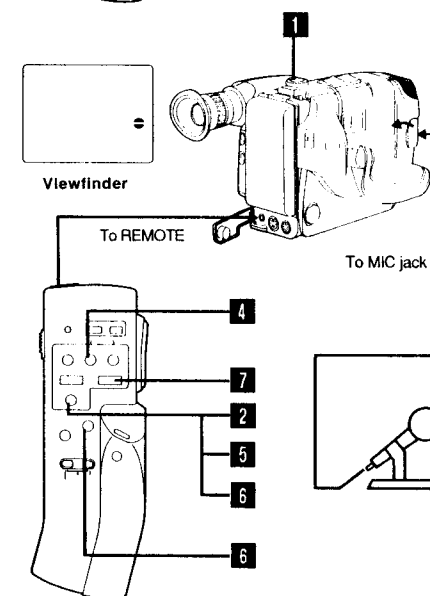
AUDIO DUBBING

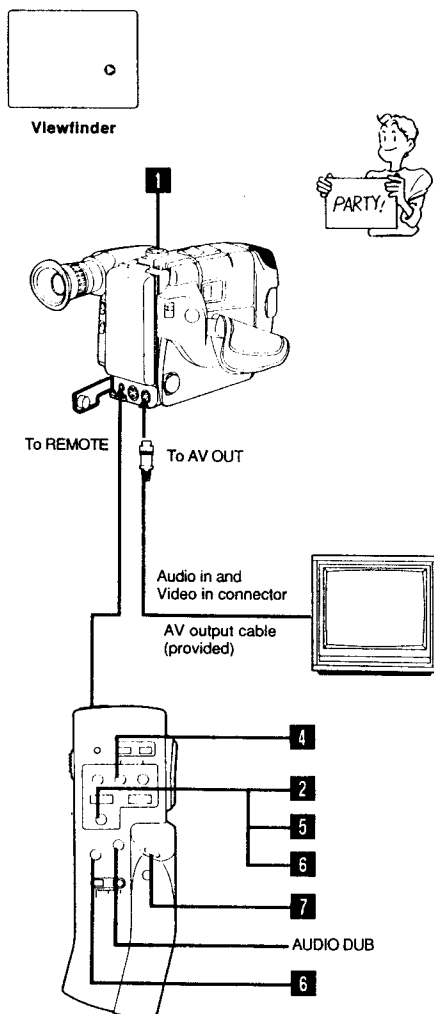
Audio dubbing means recording a new soundtrack on a pre-recorded tape, i.e., replacing the original sound with new audio material. Audio dubbing is applicable only to the longitudinal audio track (normal audio). Audio dubbing on the Hi-Fi audio track cannot be performed.

Precautions

- Tapes with their safety tabs removed cannot be audio dubbed. Reseal the safety tab slot to perform the dubbing.
- If whistling or howling is heard during audio dubbing, reduce the TV volume or move the mike farther away from the TV.
- When dubbing from an external microphone, connect the microphone to the VideoMovie's MIC jack.

- Set the power switch to "PLAY".
- Locate the desired edit-out point on the tape and press PAUSE/MONITOR.
- Set COUNTER RESET and COUNTER MEMORY to "ON" (P. 11, 23).
- Press REW to locate more quickly the place on the tape you want to begin.
- Press PAUSE/MONITOR at the exact beginning point.
- While pressing AUDIO DUB, press PAUSE/MONITOR to enter the Audio Dub Standby mode.
- Press PLAY. — Audio dubbing begins.
- When the counter reading of "0:00:00" is reached, audio dubbing stops automatically and the VideoMovie enters the Playback mode.





INSERT EDITING

Insert editing means recording a new scene into a section of prerecorded tape so that a part of the original recording can be replaced with a new sequence without excessive picture distortion at the edit-in and edit-out points. In the Insert Editing mode, the original audio on the normal audio track remains unchanged.

- 1 Set the power switch to "PLAY".
- 2 Locate the desired edit-out point on the tape and press PAUSE/MONITOR.
- 3 Set COUNTER RESET and COUNTER MEMORY to "ON" (P.11, 23).
- 4 Press REW to rewind the tape a little beyond the beginning of the scene you wish to insert.
- 5 Press PAUSE/MONITOR exactly at the beginning of the scene to insert.
- 6 While keeping INSERT pressed, press PAUSE/MONITOR.
 - The VideoMovie enters the Insert Editing mode with the scene at which the VideoMovie is aimed appearing on the screen for monitoring.
- 7 Press START/STOP to insert the new sequence.
 - When the counter reading of "0:00:00" is reached, insert editing stops automatically and the VideoMovie enters the Playback mode.

Notes:

- When in the Still mode, the counter indication may be blurred. This is normal.
- When the tape reaches the preset edit-out point during the editing operation, it may stop slightly before or after the designated point on the tape. Also, at that time, noise bars may appear momentarily. Neither of these is a defect of the unit.
- Only video and Hi-Fi audio signals are recorded in the Insert Editing mode. When the normal sound is to be recorded, press the AUDIO DUB and PAUSE buttons simultaneously in the Insert Pause mode. When INSERT and PAUSE buttons are pressed simultaneously again, the unit re-enters the Video-signal-only Recording mode.

ENGLISH

SPECIFICATIONS

Format	: S-VHS/VHS PAL standard
Power source	: DC 6 V
Power consumption	: 9.9 W
Signal system	: PAL-type
Video recording system	: Luminance: FM recording Color: Converted sub-carrier direct recording Conforms to S-VHS standard
Hi-fi audio recording system	: Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels	: 2 Hi-Fi audio channels 1 normal audio channel
Cassette	: S-VHS / VHS cassette
Tape speed (SP)	: 23.39 mm/sec
(LP)	: 11.70 mm/sec
Recording time	
Max. (SP)	: 45 minutes (with SE-C45 cassette)
(LP)	: 90 minutes (with SE-C45 cassette)
VIDEO	
Output	: 1 Vp-p, 75 ohms, unbalanced (via AV OUT connector)
AUDIO	
Output	: -6 dBs, 1 k-ohm (via AV OUT connector).
Microphone input	: -68 dBs, high impedance, unbalanced with 1.6 Ω DC 5 V $\pm$ DC out terminal
HI-FI AUDIO	
Wow and flutter	: Less than 0.005 % WRMS
CAMERA	
Pick up	: 1/3"-format CCD
Minimum required illumination	: 1 lux (Slow shutter Mode)
Illumination range	: 1 to 100,000 lux
Lens	: 8:1 zoom, f = 6.4 to 52 mm, 11:1 zoom, f = 6.8 to 71 mm, Ultra-Wide, f = 4 mm, F/1.8, with auto iris and auto macro, filter diameter 46 mm Microscope Mode F/15, distance = 92 $\pm$ 2mm
Viewfinder	: Electronic viewfinder with 0.7" color LCD
White balance	: Full-auto

GENERAL

Operating temperature	: 0°C to +40°C
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to +50°C
Weight	: Approx. 920 g (without lens cap, hand strap, and connector covers)
Dimensions	: 127(W) x 122(H) x 214(D) mm (incl. viewfinder)

AA-V11EG SPECIFICATIONS

Power requirement	: AC 110 to 240 V~, 50/60 Hz
Power consumption	: 23 W
Output	: DC 8.5 V $\pm$, 1.3 A (Charge), DC 6.3 V $\pm$, 1.8 A (VideoMovie)
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 150(W) x 42(H) x 68(D) mm
Weight	: Approx. 350 g

PROVIDED ACCESSORIES

AC power adapter/battery charger	AA-V11EG
Battery pack	BN-V22U
A/V output cable	
Cable adapter	
S-VIDEO cable	VC-V44U
S-VHS-C cassette	SE-C30
Lithium battery	CR2025
Microscope mode lens extender	
Lens holder	
Remote control unit	

For optional accessories, see P. 34

Note: Up to 11 x optical zoom magnification (measured from 8:1 wide, f=6.4 mm, to 10:1 telephoto, f=71 mm); up to 22 x digital zoom magnification.

Specifications shown are for SP mode unless otherwise specified.
E.&O.E. Design and specifications subject to change without notice.

ENGLISH

SECTION 1 DISASSEMBLY

1.1 SERVICE CAUTIONS

1.1.1 Precautions

- Before disassembling/re-assembling the set as well as soldering parts, make sure to disconnect the power cable.
- When disconnecting/connecting connectors, pay enough attention to wiring not to damage it.
- In general, chip parts such as resistors, shorting jumpers (0-ohm resistor), ceramic capacitors, diodes, etc. can not be reused after they were once removed.
- When installing parts, be careful not to do with other parts as well as not to damage others.
- When removing ICs, be careful not to damage circuit patterns.

1.1.2 How to read the disassembly and assembly

(For Cabinet Parts)

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	Note
①	CASSETTE COVER	C1	2(S1) *BUTTON (CLOSE)	<NOTE 1>
②	OPERATION UNIT	C2	6(S2) *CONNECTOR ④	<NOTE 2> <NOTE 3>
③	HOOD	C3	(S2)	<NOTE 4>

①
②
③
④
⑤

- ① : Order of steps in Procédure
When reassembling, preform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.
- ② : Part to be removed or installed.
- ③ : Fig. No. showing Procedure or Part Location.
C = Cabinet
CA = Caméra
D = Deck
- ④ : Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.
P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.
2(S1) = 2 Screws (S1)
- ⑤ : Adjustment information for installation.

1.1.3 Connection of the wires

- Pull the connector structure upward to release the clamp when removing or inserting the flat wire cable.

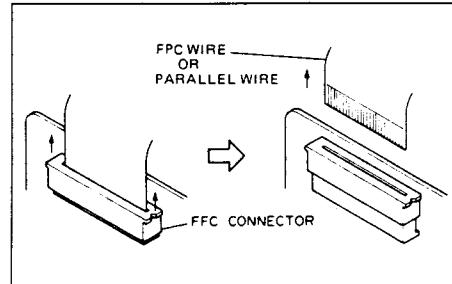


Fig. 1 TYPE A

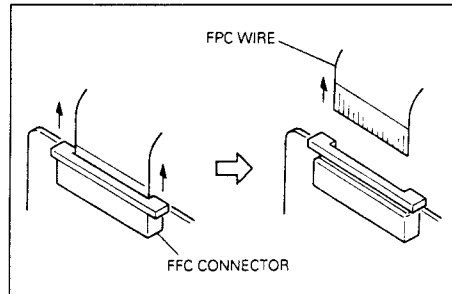


Fig. 2 TYPE B

- Depress the connector structure downward to release the clamp when removing or inserting the flat wire cable, as indicated below.

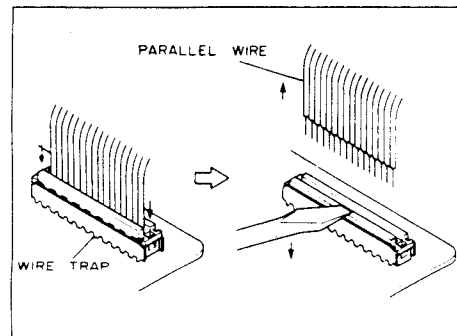
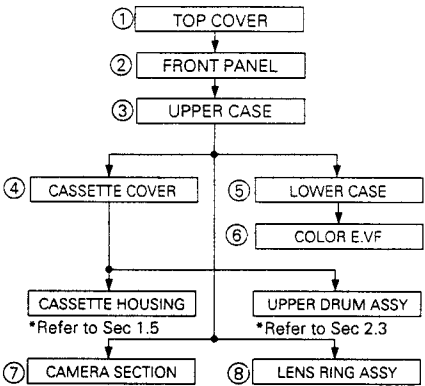


Fig. 3

1.2 DISASSEMBLY/ASSEMBLY OF CABINET PARTS

1.2.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally. The bottom cover and rear frame can be removed separately.



1.2.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	Note
①	TOP COVER	C1	1(S1), 1(S2), *CONNECTOR (A)	<NOTE 1>
②	FRONT PANEL	C2	2(S2), 3(S3), (S4), *CONNECTORS (B)-(D)	<NOTE 1>
③	UPPER CASE	C3, C4	2(S2), 5(S3), *CONNECTORS (E)-(F)	<NOTE 1>
④	CASSETTE COVER	C5	2(S3)	-
⑤	LOWER CASE	C5	3(S2), 2(S3), *CONNECTOR (G), (H)	<NOTE 1>
⑥	COLOR E. VF	C6	2(S1)	<NOTE 2>
⑦	CAMERA SECTION	C7	4(S2), *CONNECTOR (J), (K)	<NOTE 1>, <NOTE 3>
⑧	LENS RING ASSY	C7	1(S2)	-

List of Abbreviations:

- 4(S1) = 4 Screws (S1)
- 3(L1) = 3 Locking Tabs (L1)
- 3(SD1) = 3 Solder position (SD1)
- 3(K1) = 3 Positioning pins (K1)

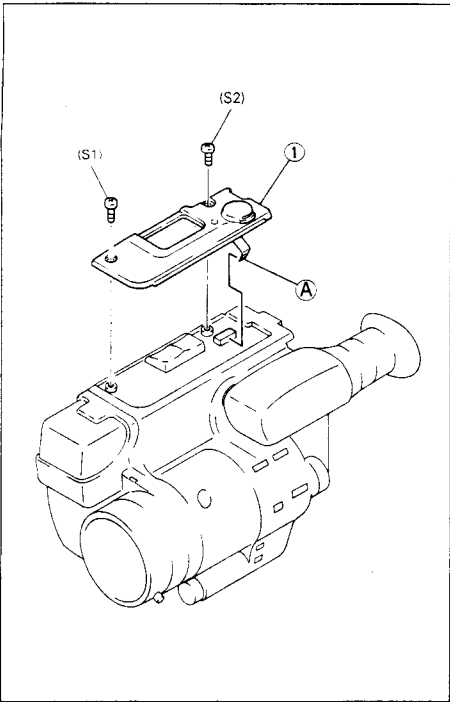


Fig. C1

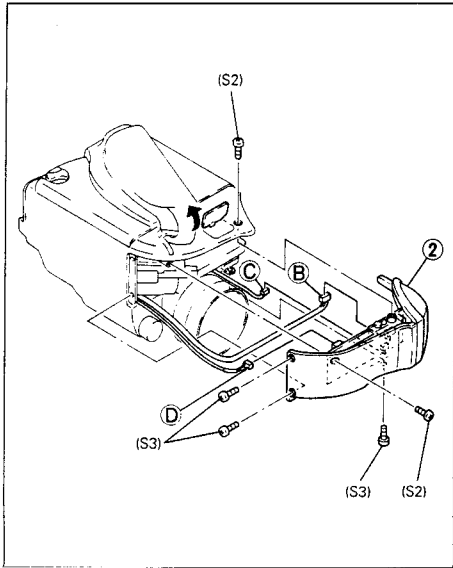


Fig. C2

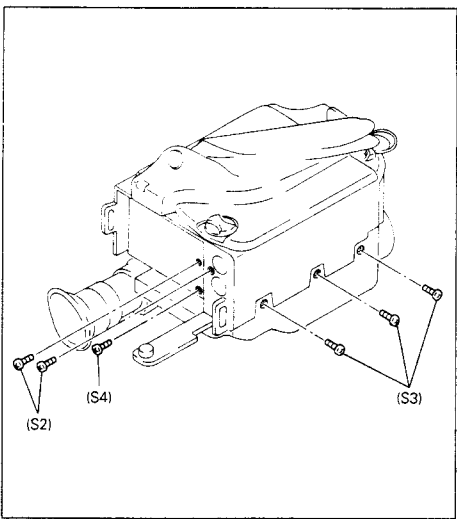


Fig. C3

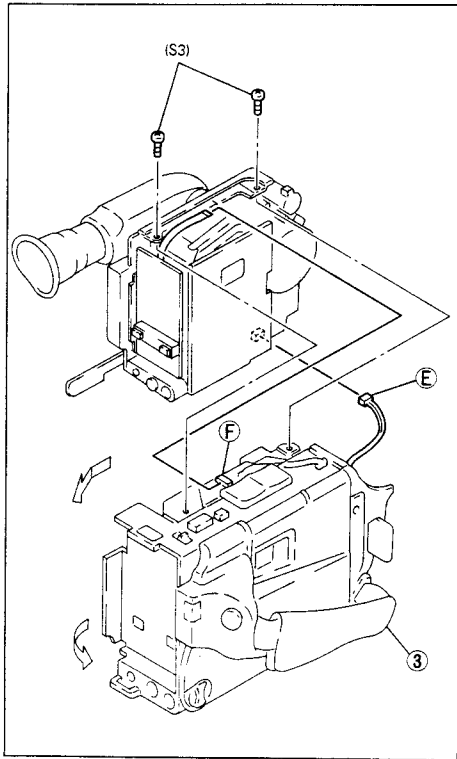


Fig. C4

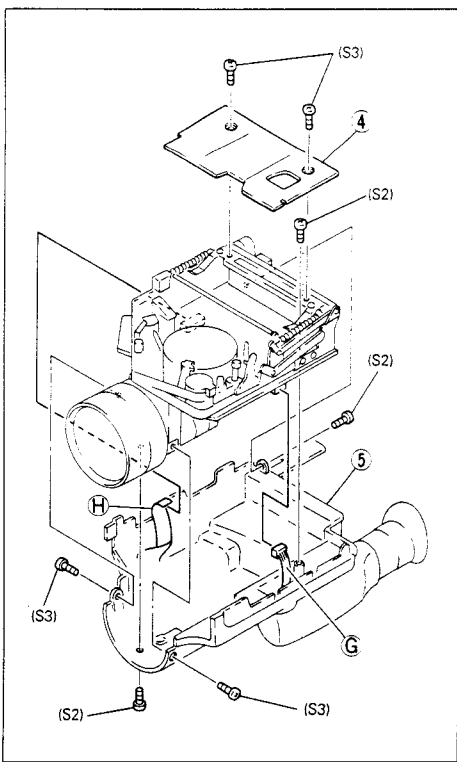


Fig. C5

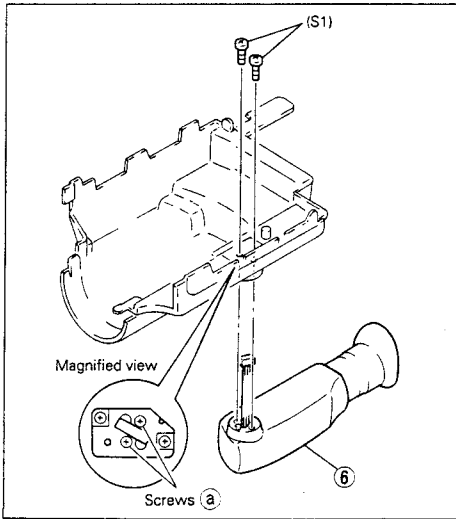


Fig. C6

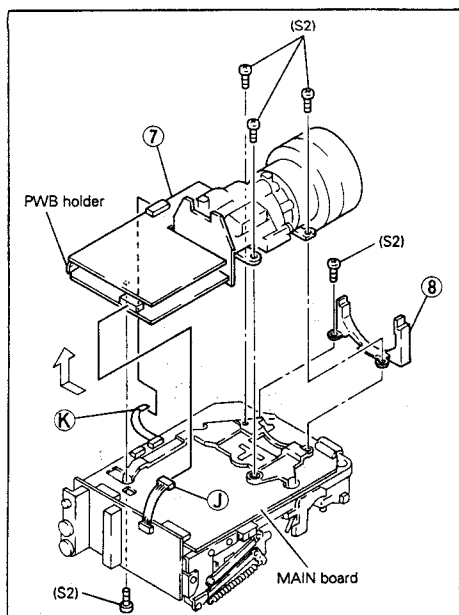


Fig. C7

Reference Notes:

<NOTE 1>

Destination of connectors

Note: three kinds of double-arrows in connection tables respectively show kinds of connector/wires.

↔ : Board to Board connector

⇔ : Flat wire

↔ : Wire

Connector	No. of Pins	Connector
(A)	6	TOP COVER ↔ ZOOM SW CN1
(B)	6	MIC AMP CN3 ↔ MAIN CN13
(C)	2	MIC AMP CN4 ↔ TALLY CN1
(D)	4	MIC AMP CN2 ↔ MAIN CN5
(E)	2	BACK-UP BATTERY ↔ MAIN CN14
(F)	12	JACK CN2 ↔ ZOOM SW CN2
(G)	7	COLOR E. VF ↔ MAIN CN10
(H)	12	OPERATION(CAM.) ↔ MAIN CN11
(J)	8	VIDEO CN5 ↔ JACK CN1
(K)	14	CPU CN1 ↔ MAIN CN2

< NOTE 2 >

When installing the color viewfinder, first place it as shown in the magnified view and then tighten the screw (a).

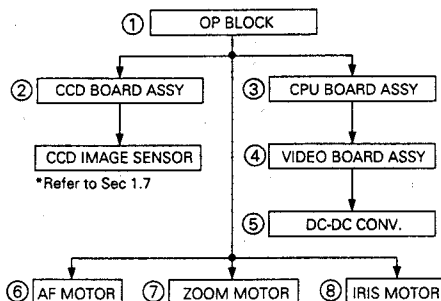
< NOTE 3 >

When removing the camera section in the direction of the arrow, do it very carefully not to get the MAIN board damaged by the PWB holder.

1.3 DISASSEMBLY/ASSEMBLY OF CAMERA PARTS

1.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the camera parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally.



1.3.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	Note
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	
①	OP BLOCK	CA1	2(S1), *CONNECTORS (A)-(C)	<NOTE 1>, <NOTE 2>
②	CCD BOARD ASSY	CA2	2(S2), *CONNECTOR (D)	<NOTE 1>
③	CPU BOARD ASSY	CA3	2(S3), *CONNECTOR (E)-(F)	<NOTE 1>
④	VIDEO BOARD ASSY	CA4	*CONNECTOR (G)	<NOTE 1>
⑤	DC-DC CONV.	CA4	2(S3)	<NOTE 1>
⑥	AF MOTOR	CA5	2(S4)	-
⑦	ZOOM MOTOR	CA5	2(S5)	-
⑧	IRIS MOTOR	CA5	2(S6)	-

List of Abbreviations:

4(S1) = 4 Screws (S1)

3(L1) = 3 Locking Tabs (L1)

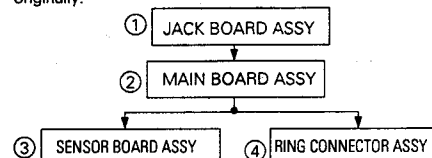
3(SD1) = 3 Solder position (SD1)

3(K1) = 3 Positioning pins (K1)

1.4 DISASSEMBLY/ASSEMBLY OF DECK PARTS

1.4.1 Disassembly flow chart

This flowchart indicates the disassembly step for the deck parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally.



1.4.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	Note
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	
①	JACK BOARD ASSY	D2	*CONNECTORS (A)-(B)	<NOTE 1>
②	MAIN BOARD ASSY	D1	2(S1), 2(S2), (S3), *OP HOLDER, *CONNECTORS (C)-(G)	<NOTE 1>
③	SENSOR BOARD ASSY	D3	4(S4), *CONNECTORS (J)-(L)	<NOTE 1>
④	RING CONNECTOR ASSY	D3	*CONNECTOR (H)	<NOTE 1>

List of Abbreviations:

4(S1) = 4 Screws (S1)

3(L1) = 3 Locking Tabs (L1)

3(SD1) = 3 Solder position (SD1)

3(K1) = 3 Positioning pins (K1)

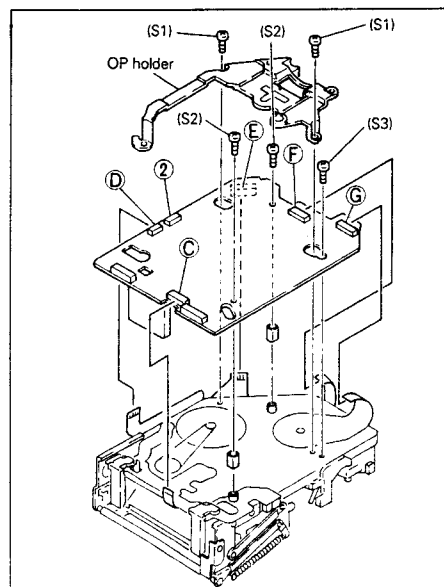


Fig. D1

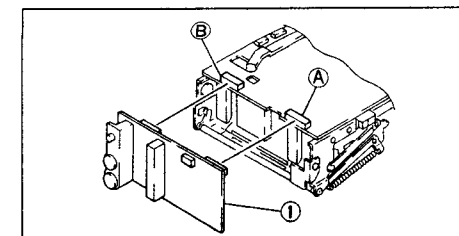


Fig. D2

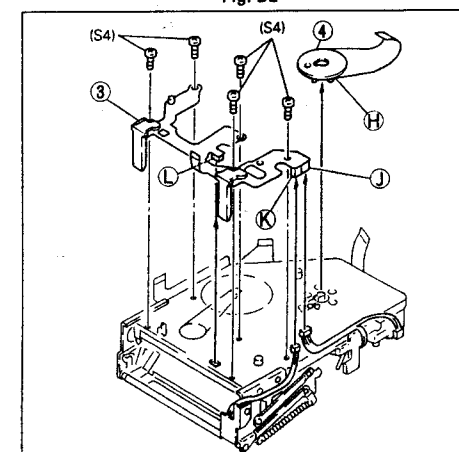


Fig. D3

Reference Notes:

<NOTE 1>

Destination of connectors

Note: three kinds of double-arrows in connection tables respectively show kinds of connector/wires.

↔ : Board to Board connector

⇔ : Flat wire

↔ : Wire

Connector	No. of Pins	Connector
(A)	30	MAIN CN3 ↔ JACK CN3
(B)	30	MAIN CN4 ↔ JACK CN4
(C)	13	MAIN CN1 ↔ SENSOR
(D)	11	MAIN CN7 ↔ A/C HEAD
(E)	18	MAIN CN9 ↔ CAPSTAN MOTOR
(F)	18	MAIN CN6 ↔ DRUM MOTOR
(G)	20	MAIN CN8 ↔ RING CONNECTOR ASSY
(H)	20	DRUM HEAD ↔ RING CONNECTOR ASSY
(J)	4	MODE CTL MOTOR ↔ SENSOR CN2 END SENSOR BKT ASSY
(K)	2	DEW SENSOR ↔ SENSOR CN3
(L)	3	CAM SWITCH ↔ SENSOR CN1

< NOTE 2 >

When disconnecting connectors pay the most careful attention to them and the board since the SENSOR board is flexible.

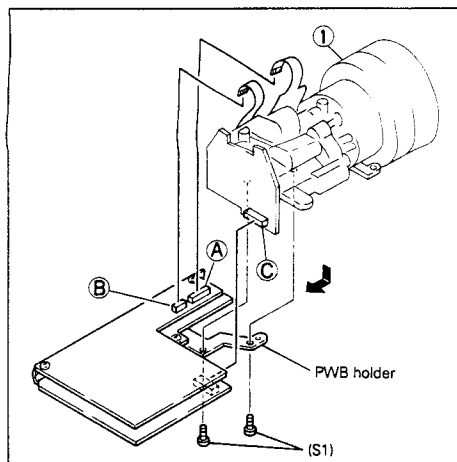


Fig. CA1

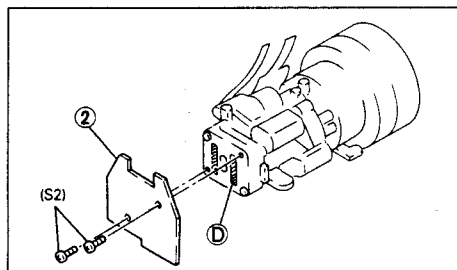


Fig. CA2

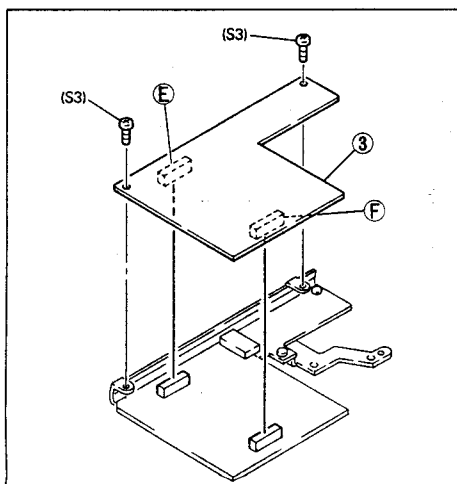


Fig. CA3

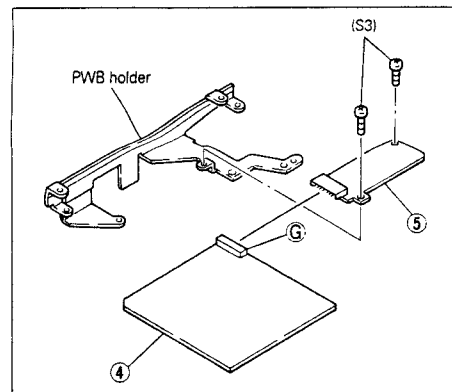


Fig. CA4

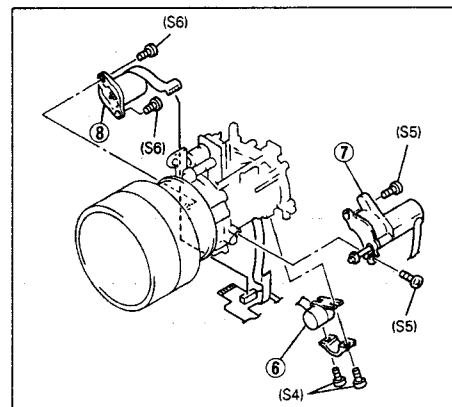


Fig. CA5

Reference Notes:

<NOTE 1>

Destination of connectors

Note: three kinds of double-arrows in connection tables respectively show kinds of connector/wires.

⇔ : Board to Board connector

⇔ : Flat wire

↔ : Wire

Con- nector	No. of Pins	Connector
(A)	21	FOCUS/ZOOM AF MOTOR, SENSOR ⇔ CPU CN4
(B)	9	FOCUS RING ⇔ CPU CN5
(C)	22	CCD CN1 ⇔ VIDEO CN1
(D)	20	CCD IMAGE SENSOR ⇔ CCD SOCKET
(E)	30	VIDEO CN2 ⇔ CPU CN2
(F)	30	VIDEO CN3 ⇔ CPU CN3
(G)	12	VIDEO CN4 ⇔ DC-DC CONV.

< NOTE 2 >

When removing the OP block, first release the PWB holder of the PWB section from the projection of the OP block and then remove the PWB section in the direction of the arrow.

1.5 REPLACEMENT OF CASSETTE HOUSING

1. After detaching the top cover, front panel, upper case and cassette cover, move the cancel plate in the direction of the arrow ③ to set the cassette housing to the EJECT mode.
2. Remove a screw to remove DEW sensor.
3. Remove four screws (A) to remove the cassette housing.

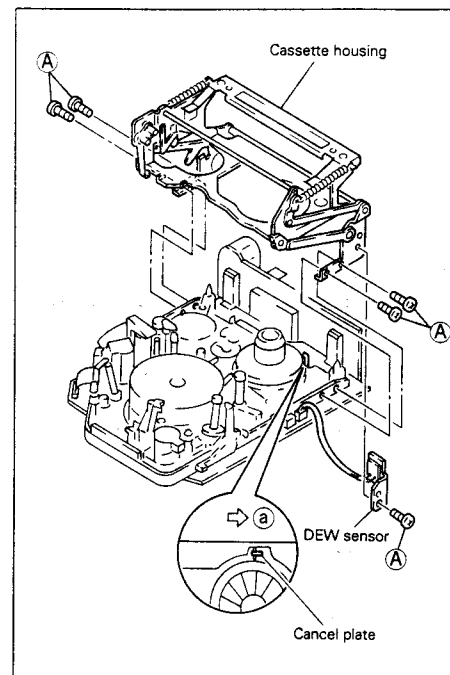


Fig. 1-5-1 Cassette housing

1.6 TO TAKE OUT CASSETTE TAPE

When the deck enters the Emergency mode with cassette tape loaded and it cannot be ejected by pressing the EJECT button, take out of the cassette housing according to the following procedure.

1. Disconnect the deck from the power source and remove the top cover, front panel, upper case and cassette cover.
2. Remove wires of the mode control motor as shown in the magnified view (A) and connect jumping wires to the terminals.
3. Holding the cassette housing by hand, connect the jumping wires to battery and set the mechanism for Unloading as it is in the Eject mode. In the condition, turn the take-up gear (see the magnified view (B)) in the direction of the arrow ③ (toward the drum) to wind the tape. Checking up whether the tape is damaged or not, stop holding of the cassette housing by hand.

Note: If the mechanism comes into the unloading mode as the cassette tape is not held by hand, it results in tape damage.

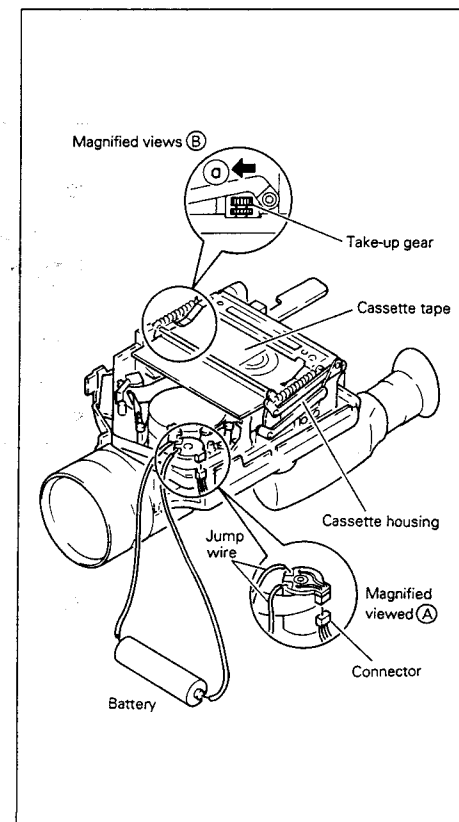


Fig. 1-6-1 Cassette tape

1.7 REPLACEMENT OF CCD IMAGE SENSOR

Note:

- pay the most careful attention to the transparent glass and optical LPF of the CCD image sensor so as not to soil and damage them. If something is soiled with fingerprints, etc., gently clean it with silicon-processed paper/cloth or chamois.
- When the CCD image sensor is shipped from the factory, there are pretention seals applied onto the transparent glass. Leave the protector as it is, and take it off just before assembling the CCD image sensor to the OP block.
- Carry out the whole work with the OP block being laid upside down (see the figure).

1.7.1 Removal of CCD image sensor

1. Remove two screws (A) securing the CCD base.
2. Remove the optical LPF holder with careful attention to the CCD image sensor so as not to drop it.
3. Disassembly the optical LPF, spacer rubber and CCD image sensor from the OP block.

1.7.2 Installation of new CCD image sensor

1. Remove the protection seal from a new CCD image sensor. Stack the spacer rubber on the image sensor, then do the optical filter on it, and put the assembly of them on the OP block. At that time, make sure to install them according to the following directions.

Parts Name	Orientation
CCD image sensor	Marking orientates in the arrow direction.
Spacer rubber	IC side is horizontal.
Optical filter	Marking orientates in the direction of the arrow and the OP block.

2. Put the optical filter holder and the CCD base on the OP block as their markings orientate in the reverse direction of the arrow.
3. Fix the CCD base to OP block with the two screws (B). At that time, be careful of the orientation.
4. After completion of CCD image sensor replacement and reassembly of all P.C. boards to the camera section, observe the monitor to confirm no vignetting caused by the bodytube, rings, lens hood, etc. If no vignetting is observed, it can be said that image's parallel, horizontality and centering are correct.

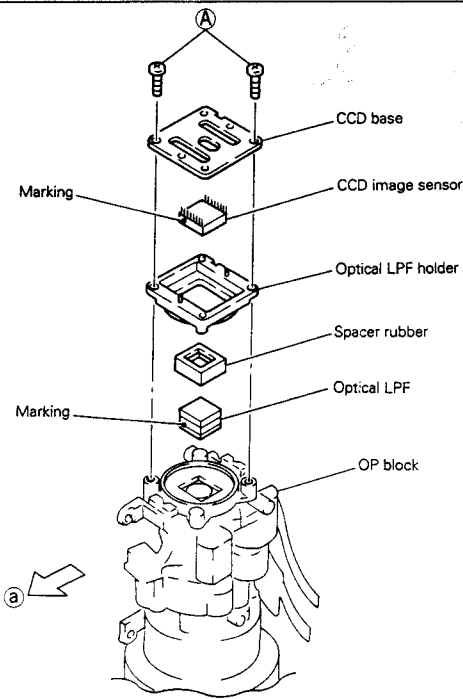


Fig. 1-7-1 CCD image sensor

SECTION 2 MECHANISM ADJUSTMENT

2.1 SERVICE CAUTIONS

2.1.1 Precautions

1. Before disassembling/re-assembling the set as well as soldering parts, make sure to disconnect the power cable.
2. When disconnecting/connecting connectors, pay enough attention to wiring not to damage it.
3. When installing parts, be careful not to do with other parts as well as not to damage others. (Pay the most careful attention to the upper drum assy and tape transport mechanism.)

2.1.2 How to read the disassembly and assembly

- ① : Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.
- ② : Starting No. followed by corresponding part which can be removed at this stage.
See example below.
Example:
SUPPLY REEL DISK ASSY can be removed without removing any other parts.
But BAND ARM ASSY can be removed only after removing SUPPLY REEL DISK ASSY (No.1).

- ③ : Part to be removed or installed.
- ④ : Location of part.
T = Top
B = Bottom
- ⑤ : Fig. No. showing Procedure or Part Location.
M = Mechanism
- ⑥ : Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.
P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.
2(S1) = 2 Screws (S1)
- ⑦ : Adjustment information for installation.
(+) = Refer to Exploded Views for Lubrication information.

(For Mechanism Parts)

STEP /LOC. No.	START-ING No.	PART	FIG. No.	REMOVAL	INSTALLATION
				*UNHOOK/UNLOCK /RELEASE/UNPLUG /UNSOLDER	ADJUSTMENT CONDITION NOTE
①	1	SUPPLY REEL DISK ASSY	T M1	(W1)	<NOTE 3>
②	1	BAND ARM ASSY	T M1	(W2), (P1), *(L1)	—
③	1	BAND REEL ASSY	T M1	—	—
④	1	CAM SWITCH ASSY	T M1	*2(L2)	See, Adjustment procedure for Mechanism Item 1-10, <NOTE 4>
⑤	1-2, 5	TENSION ARM ASSY	T M2	(W3)	<NOTE 3>
⑥	6	END SENSOR BKT ASSY	T M2	(S1), CONNECTOR (A)	<NOTE 1>
⑦	7	CASSETTE BLOCK	T M3	(S2)	—

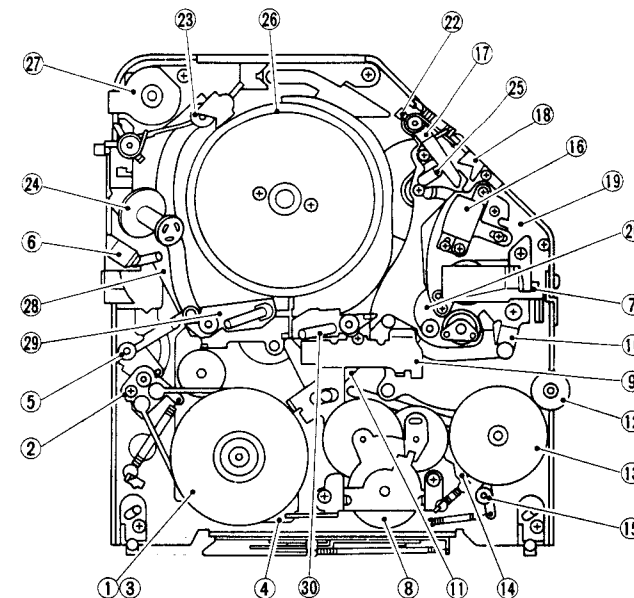
① ② ③ ④ ⑤ ⑥ ⑦

2.2 DISASSEMBLY/ASSEMBLY OF MECHANISM PARTS

This procedure starts with the condition that the cabinet parts and deck parts. Also, all the following procedures for adjustment and parts replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reverse order.

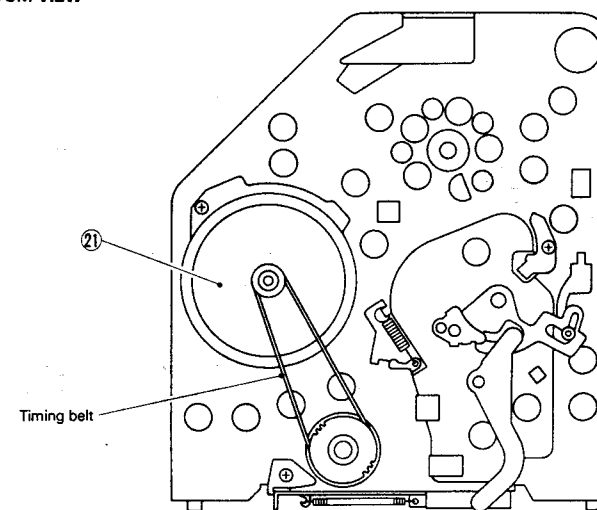
STEP /LOC. No.	START ING No.	PART	FIG. No.	REMOVAL		INSTALLATION	
				*UNHOOK/UNLOCK /RELEASE/UNPLUG /UNSOLDER		ADJUSTMENT CONDITION NOTE	
(1)	1	SUPPLY REEL DISK ASSY	T M1	(W1)		<NOTE 3>	
(2)	1	BAND ARM ASSY	T M1	(W2), (P1), *(L1)		-	
(3)	1	BAND REEL ASSY	T M1	-		-	
(4)	1	CAM SWITCH ASSY	T M1	*2(L2)		See, Adjustment procedure for Sec 2.4, <NOTE 4>	
(5)	1,5	TENTION ARM ASSY	T M2	(W3)		<NOTE 3>	
(6)	6	END SENSOR BKT ASSY	T M2	(S1), CONNECTOR (A)		<NOTE 1>	
(7)	7	CASSETTE BLOCK	T M3	(S2)		-	
(8)	8	CLUTCH UNIT	T M3	2(S3), (P2), *(L3) TIMING BELT		-	
(9)	8	GUIDE PLATE	T M4	2(S4)		-	
(10)	8	PINCH ROLLER ARM ASSY	T M4	(S5)		-	
(11)	8	SPRING PLATE ASSY	T M4	(P3), *(L4)		-	
(12)	12	TAKE-UP GEAR	T M5	(W4)		-	
(13)	12	TAKE-UP CLUTCH GEAR	T M5	(W5)		<NOTE 3>	
(14)	12	SEARCH BRAKE SUB ASSY	T M5,M5A	(W6), (P4), *(L5)		-	
(15)	8,12	SEARCH BRAKE LEVER	T M5,M5A	-		-	
(16)	16	A/C HEAD ASSY	T M6	2(S6),CONNECTOR (B)		<NOTE 1>, <NOTE 3>	
(17)	17	LOCK ARM (2) ASSY	T M6	(W7), (P5), *2(L6), (P6), *2(L7)		-	
(18)	17	MIDDLE POLE CATCHER ASSY	T M7	(S2), (S7)		-	
(19)	17	SUB DECK ASSY	T M7	(S7), (S8)		-	
(20)	17	MIDDLE POLE ARM ASSY	T M7	-		-	
(21)	17	CAPSTAN MOTOR ASSY	T M8	2(S3), (S9)		-	
(22)	17	LOCK ARM (1)	T M8	-		-	
(23)	23	HEAD CLEANER ASSY	T M9,M9A	(W8), *2(L8)		-	
(24)	23	IMPEDANCE ROLLER ARM ASSY	T M9,M9A	(W9), *2(L9)		-	
(25)	25	SUPPLY SLANT POLE ASSY	T M9,M9A	(S2)		-	
(26)	23	DRUM ASSY	T M10 ,B ,M11	2(S10), (S2) *BRUSH		<NOTE 2>, <NOTE 3>	
(27)	26	MODE CTL MOTOR	T M10	2(S11)		-	
(28)	26,28	SUPPLY GUIDE RALL	T M12	2(S12)		-	
(29)	26,29	SUPPLY POLE BASE ASSY	T M12	(S13)		-	
(30)	26,28,30	TAKE-UP POLE BASE ASSY	T M12	(S13)		-	
(31)	1-31	SUPPLY RING GEAR	T M13	(W10)		See, Adjustment procedure for Sec 2.4	
(32)	31	SUPPLY MIDDLE GEAR	T M13	(W11)		See, Adjustment procedure for Sec 2.4	
(33)	31	LOADING GUIDE 2	T M13	-		-	
(34)	32,34	LOADING GIDE	T M14	3(W12), 3(W13)		-	
(35)	31,35	DRIVE GEAR	T M14	-		-	
(36)	34,36	LOADING RING	T M14	-		See, Adjustment procedure for Sec 2.4	
(37)	34,37	MIDDLE POLE CAM GEAR	T M14	-		See, Adjustment procedure for Sec 2.4	
(38)	35,38	LOADING GEAR 2	T M15	(W14)		-	
(39)	35,39	ENCODER GEAR (1)	T M15	(W15)		See, Adjustment procedure for Sec 2.4	
(40)	39,40	ENCODER GEAR (2)	T M15	-		-	
(41)	39,41	CONTROL CAM GEAR	T M15	(W16)		See, Adjustment procedure for Sec 2.4	

TOP VIEW



Note: For (31) to (41) , refer to page 2-7, 2-8 of this manual.

BOTTOM VIEW



Timing belt

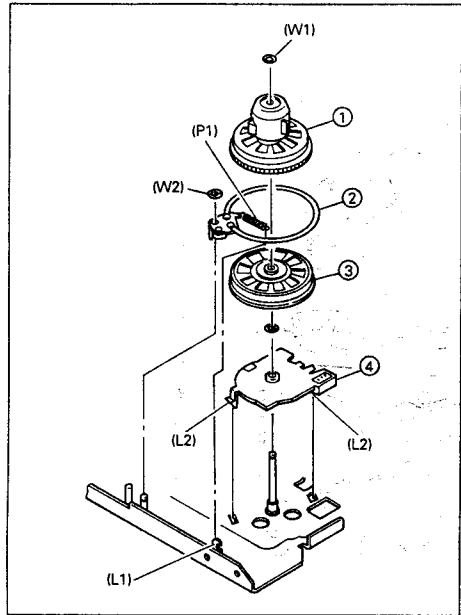


Fig. M1

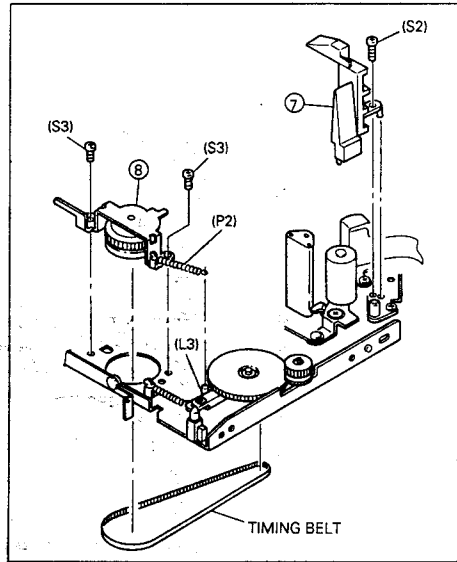


Fig. M3

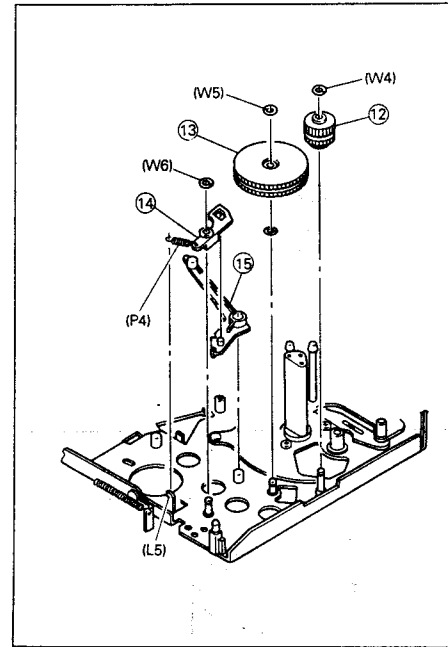


Fig. M5

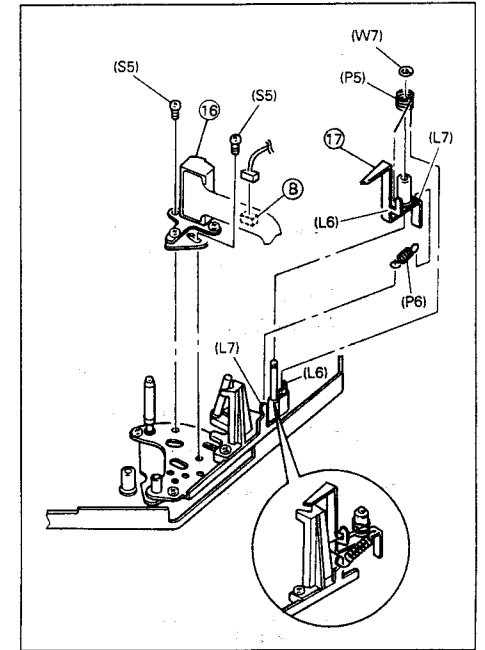


Fig. M6

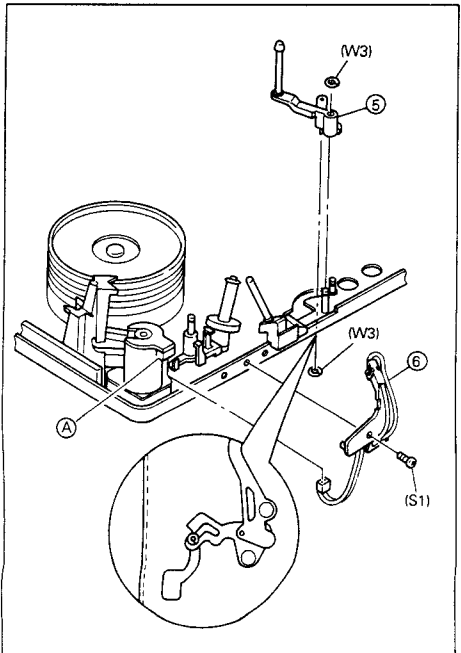


Fig. M2

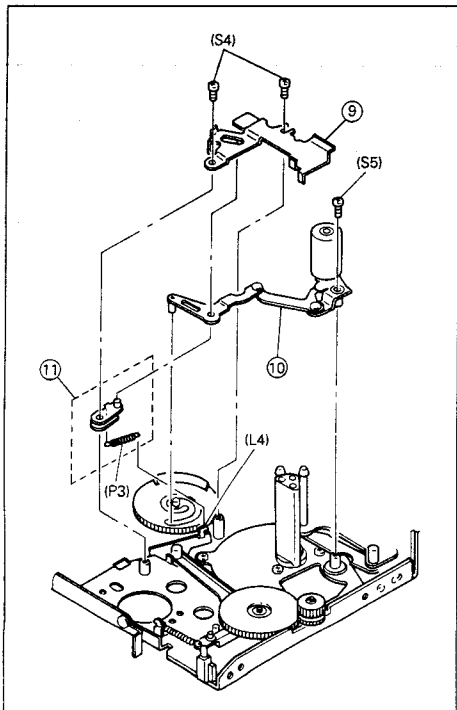


Fig. M4

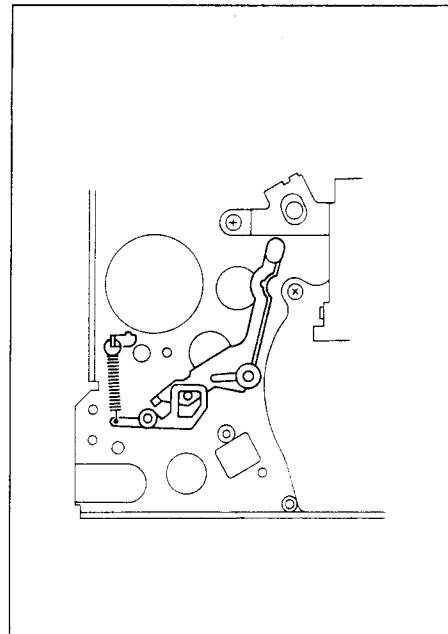


Fig. M5A

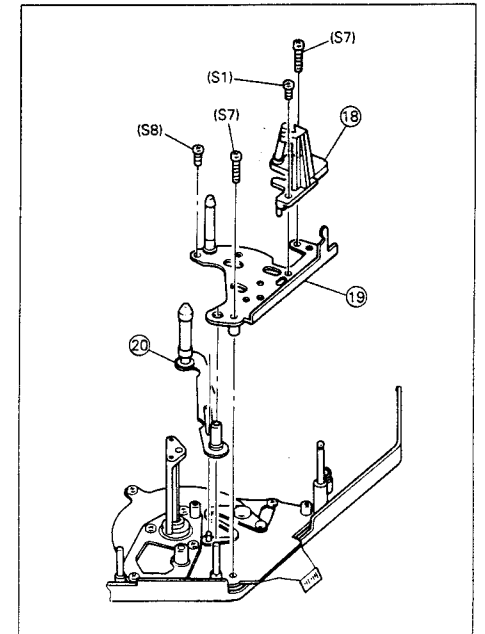


Fig. M7

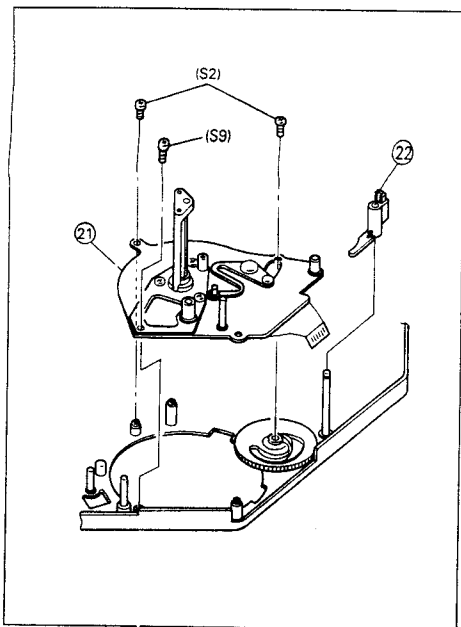


Fig. M8

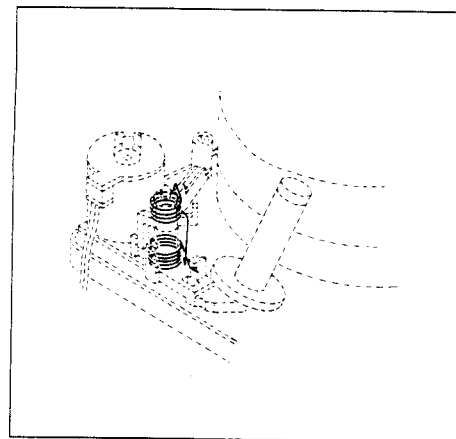


Fig. M9A

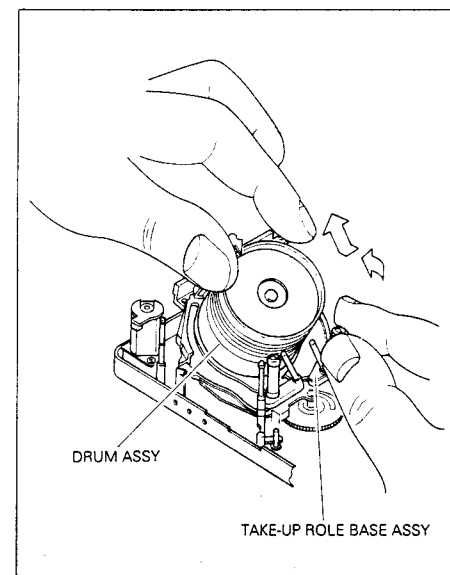


Fig. M11

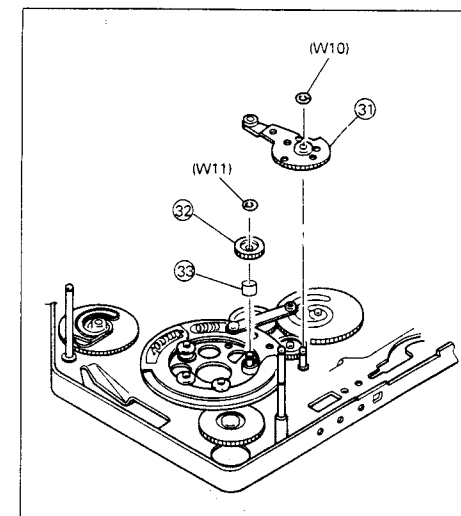


Fig. M13

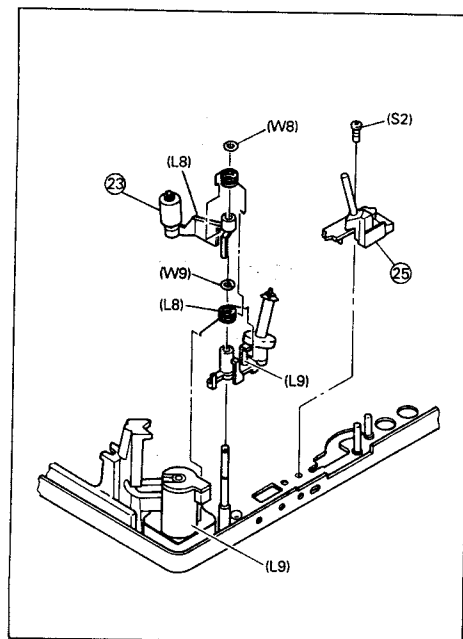


Fig. M9

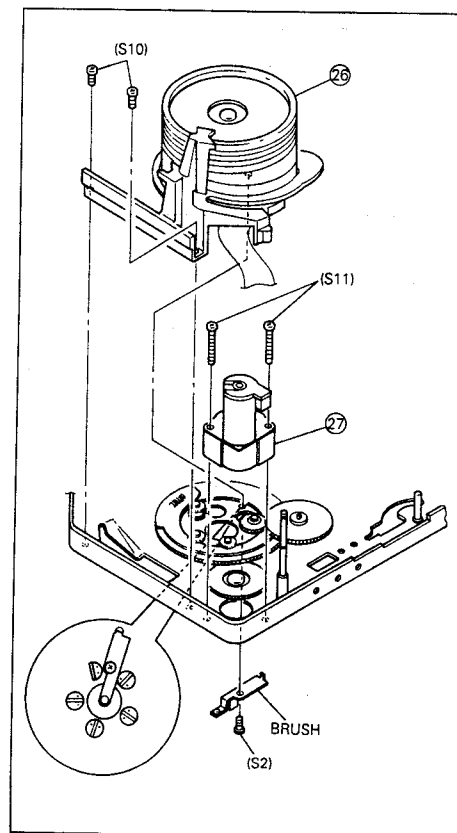


Fig. M10

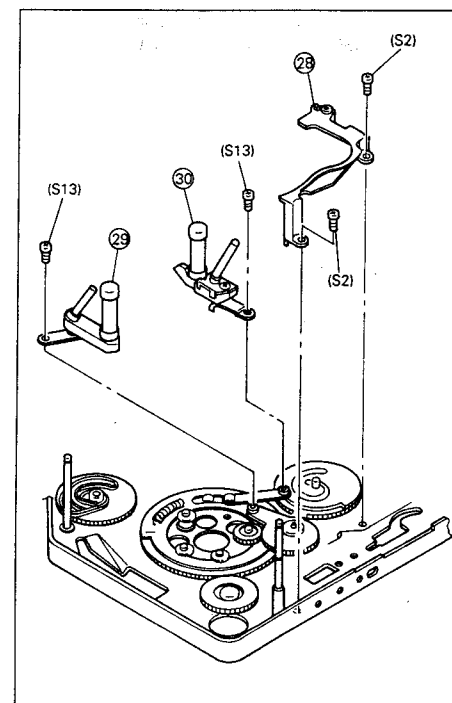


Fig. M12

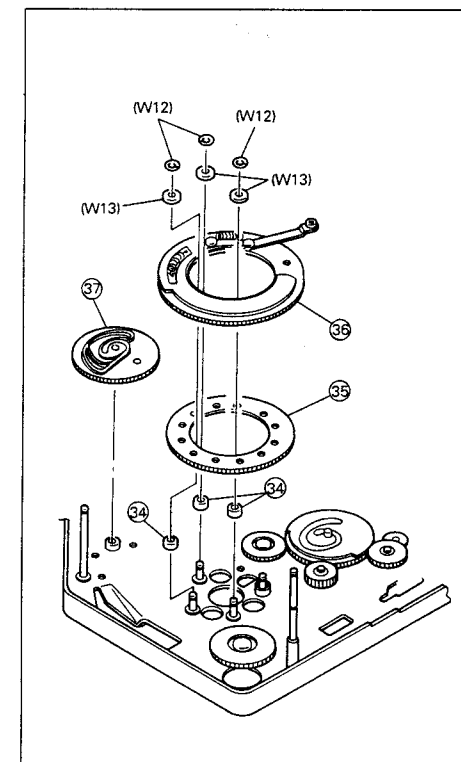


Fig. M14

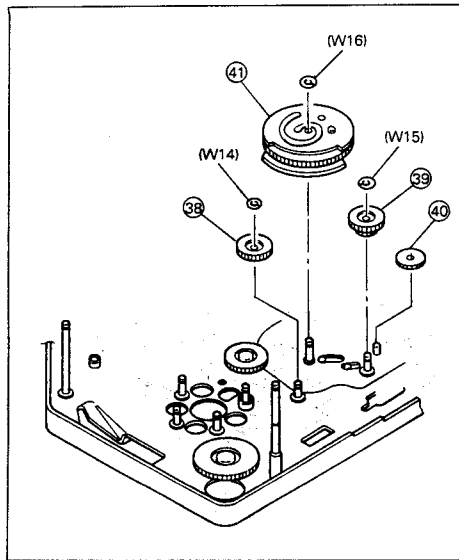


Fig. M15

Reference Notes:

<NOTE 1>

Destination of connectors

Note: three kinds of double-arrows in connection tables respectively show kinds of connector/wires.

↔ : Board to Board connector

↔ : Flat wire

↔ : Wire

Con- nector	No. of Pins	Connector
(A)	2	MODE CTL MOTOR ↔ SENSOR CN2
(B)	2	A/C head ↔ DEW, SENSOR

<NOTE 2>

For removing the drum assy, hold the drum assy and the take-up pole base assy while sliding the drum assy in the direction of the arrow so as to slide the take-up pole base assy off the drum assy take-up guide rail.

<NOTE 3>

See, Adjustment procedure for TAPE INTERCHANGEABILITY ADJUSTMENT section 2.5.

<NOTE 4>

When disconnecting, do it very carefully since the other side connector (SENSOR board side) is attached to a flexible wire.

2.3 REPLACEMENT OF UPPER DRUM

Note: Be very careful not to touch any head of a new upper drum as well as not to damage the drum.

2.3.1 Removal of upper drum

1. Carefully unsolder at 18 points shown in Fig. 2-3-1 on the UPPER DRUM board.

Note: If solder is not completely removed, it may cause damage of the head pins when the upper drum is removed.

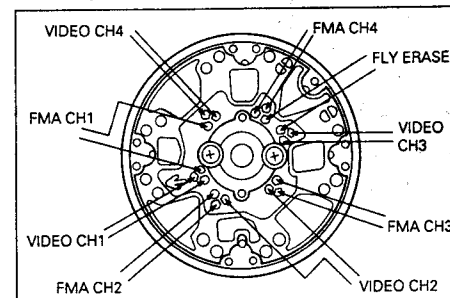


Fig. 2-3-1 Upper drum replacement (1)

2. Remove two screws and draw out the upper drum in the direction of the arrows.

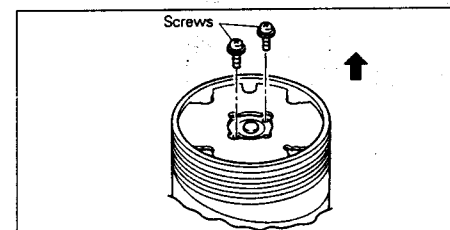


Fig. 2-3-2 Upper drum replacement (2)

3. When it is hard to remove the upper drum, set the upper drum removal tool (YTU94031A) with the screws which are once removed in the step 2, and tighten the center screw to remove it easily.

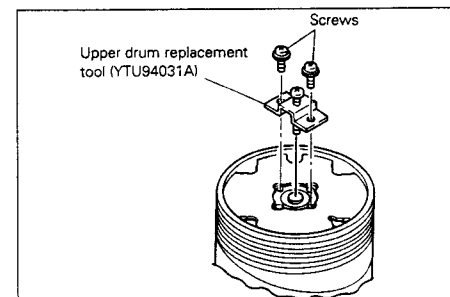


Fig. 2-3-3 Upper drum replacement (3)

2.3.2 Installation of upper drum

1. Before installing a new upper drum, insert a soldering iron (50 W) into the hole of the upper drum and heat it for about 3 to 5 minutes to expand it.

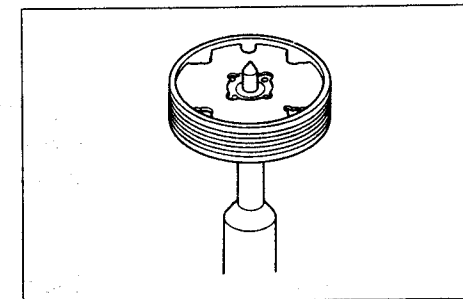


Fig. 2-3-4 Upper drum replacement (4)

2. Accord the orientations of the arrow marking on the upper drum board and the projection on the mold of the lower drum's rotary transformer with each other, and put the upper drum into the lower drum.

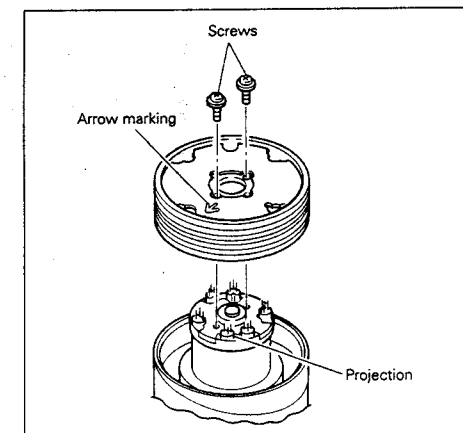


Fig. 2-3-5 Upper drum replacement (5)

3. Tighten the screws lightly first, then, alternately tighten them gradually as the upper drum is cooled.

4. After replacement finishes, make sure to check up and adjust the following items.

- Sec 2.5 TAPE INTERCHANGEABILITY ADJUSTMENT
- Sec 3.1 DECK SECTION ADJUSTMENT

2.4 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

Note: Pay careful attention to the installing order and phase of mechanism parts of the loading system.

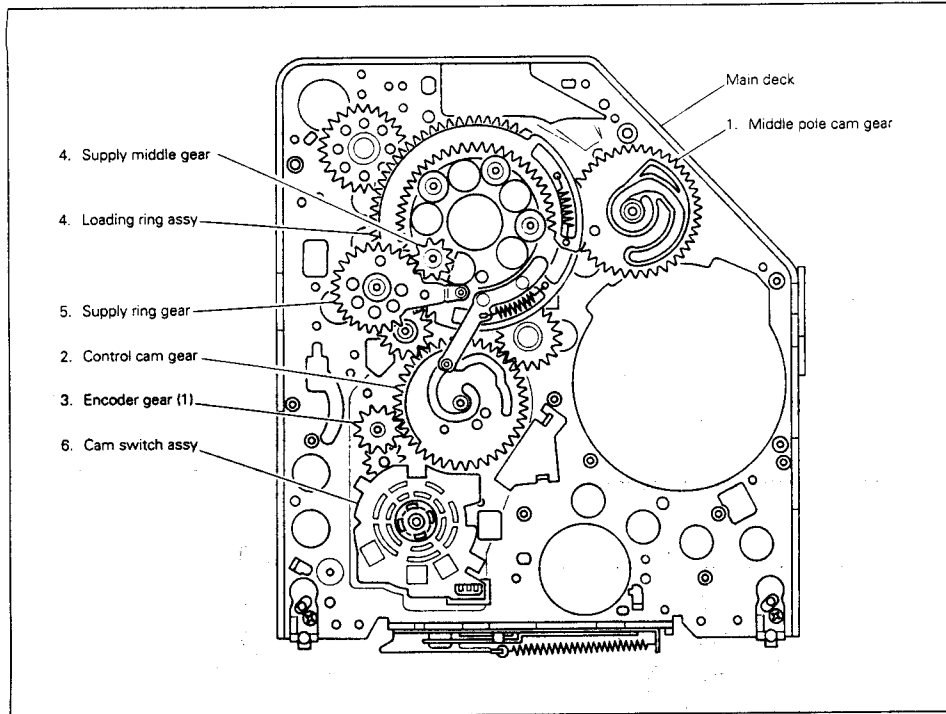


Fig. 2-4-1 Phase adjustment of loading system

1. Middle pole cam gear

Position the middle pole cam gear so that its adjusting hole and the hole of the main deck coincide with each other.

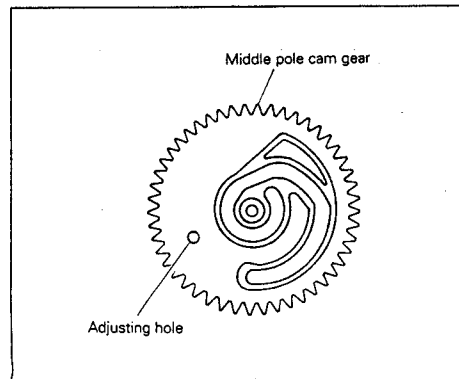


Fig. 2-4-2 Middle pole cam gear

2. Control cam gear

Position the control cam gear so that its adjusting hole and hole of the main deck coincide with each other.

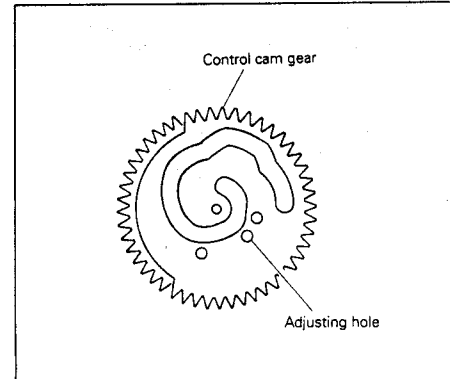


Fig. 2-4-3 Control cam gear

3. Encoder gear (1)

Engage the encoder gear (1) with the control cam gear so that the marking of the encoder gear (1) is positioned in the line between the axes of the encoder gear (1) and the control cam gear.

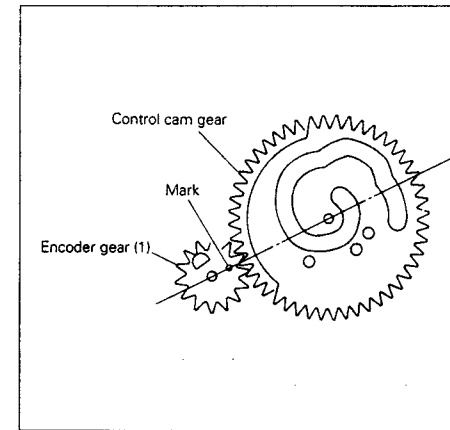


Fig. 2-4-4 Encoder gear (1)

4. Loading ring assembly, supply middle gear

Engage the supply middle gear with the loading ring assembly so that two teeth of the supply middle gear and the internal first two teeth of the loading ring assy are gearing with each other.

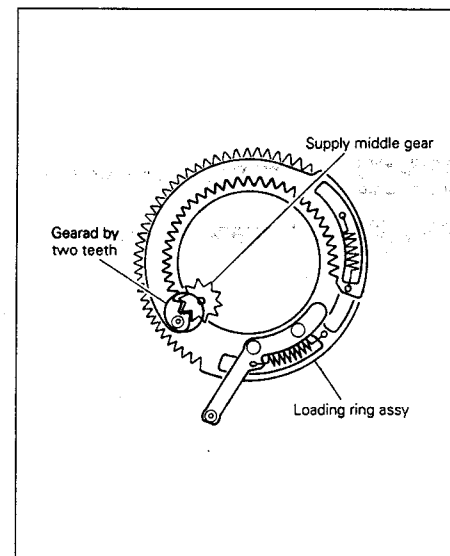


Fig. 2-4-5 Loading ring assy, supply middle gear

5. Supply ring gear

Engage the supply ring gear so that its hole coincides with that of the loading ring assy.

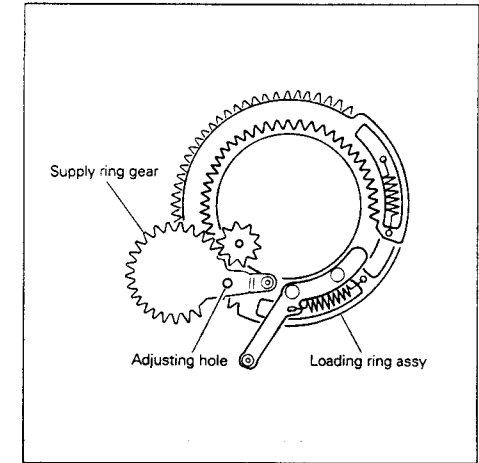


Fig. 2-4-6 Supply ring gear

6. Cam switch assembly

Set the cam switch assy so that the notch of its gear teeth coincides with both the rectangle hole (A) and the hole of the main deck.

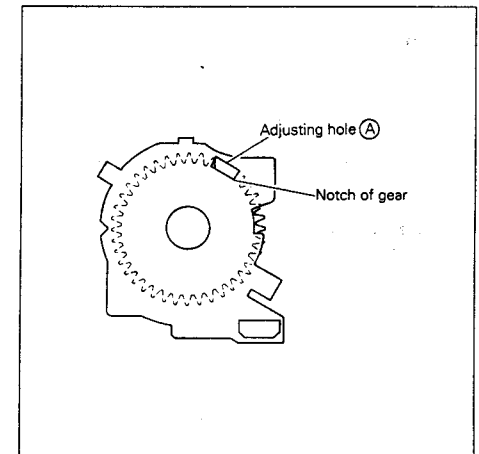


Fig. 2-4-7 Cam switch assy

After completion of the above steps 1 through 6, make sure to confirm that respective phases are correct.

2.5 TAPE INTERCHANGEABILITY ADJUSTMENT

In most cases the deck section is in need of mechanical adjustment, it results from replacement of worm mechanical parts or video heads.

In the event of malfunction with mechanical section, troubleshooting with the aid of proper test instruments must be done first, and then commence necessary repair, replacement and adjustment, etc.

2.5.1 Required adjustment tools

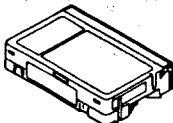
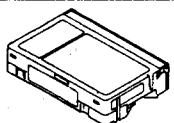
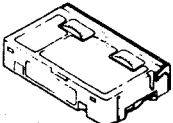
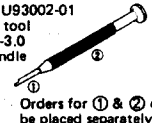
Alignment tape for SP interchangeability (MHPE-C or MH-C2)	Alignment tape for LP interchangeability (MHPE-LC)
	
Cassette torque meter PUJ50431-2	A/C head positioning tool YTU93002A (incl. ① & ②)
	① YTU93002-01 Bit tool ② PD-3.0 Handle 

Table 2-5-1

Orders for ① & ② can be placed separately.

2.5.2 Back tension

1. Set a cassette torque meter onto the deck and measure the back tension in the standard REC mode to confirm that the back tension is 13 – 22 gr-cm.
2. If not, replace the tension band. When the value widely fluctuates in the measurement, replace the supply reel disk.
3. With the cassette torque meter, confirm that the play torque is 20 – 35 gr-cm. If necessary, replace the take-up clutch gear.

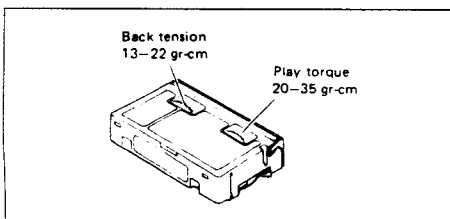


Fig. 2-5-1 Cassette torque meter

2.5.3 Tape pattern

1. Observe signal at TP802 (V TP FM) with external trigger from TP502 (DRUM FF) on the MAIN board.
2. Play back the SP stairstep signal of the alignment tape, and maximize the FM waveform by the tracking button.
3. If the observed FM waveform is not flat, adjust the height of the supply or take-up guide roller with an ordinary screwdriver (-).

Note: Slowly turn the guide roller to prevent the tape and drum from damage.

4. By operating the tracking button (both in + and - directions) in the manual tracking mode, vary the output level of the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape.
5. When the FM waveform breaks in the level varying process, subtly adjust the height of guide rollers at every breaking point so that the waveform varies as flat as possible. repeat the above steps 4. and 5. several times to confirm that the waveform is flat as a whole.
6. Play the LP stairstep signal of the alignment tape and adjust the Tracking CTL to maximize the FM waveform.
7. Confirm, FM waveform variation is always flat. If necessary, repeat 3..

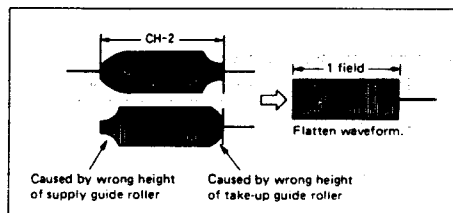


Fig. 2-5-2 FM waveform-1

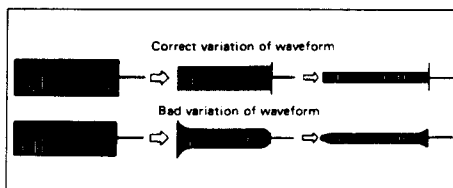


Fig. 2-5-3 FM waveform-2

8. Record both in SP and LP modes and playback the signal to confirm that the FM waveform is flat in both modes.

Note: If there is FM dropout at the supply side (tape inlet of the drum) in LP/SP REC PB, check the back tension first and adjust the parallelism with the alignment tape for the best setting.

9. Through the above adjustments, make sure of no wrinkle/damage in the tape around the impedance roller and take-up guide pole in Loading/Unloading, Search Rewind, and at mode shift from Search Rewind to Play. If tape wrinkling or damage occurs around the take-up guide pole, adjust the contact (angle) of the audio/control head to transport the tape correctly along the lower flange of the guide pole.

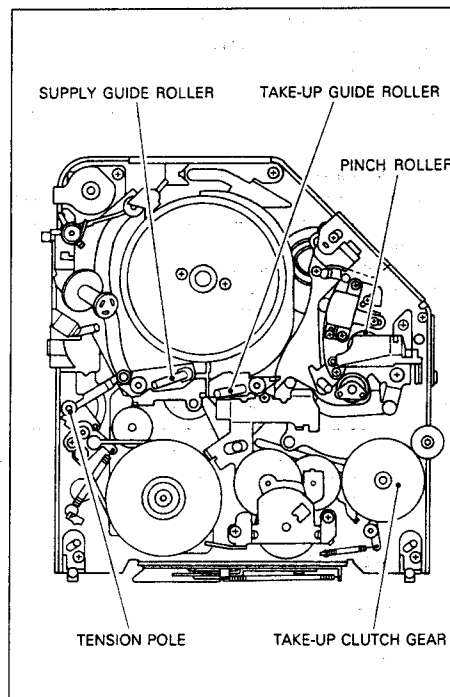


Fig. 2-5-4 Tape transport system

2.5.4 A/CTL head height & azimuth

1. Play back the SP 6 kHz segment of the alignment tape (MHPE-C or MH-C2) and observe waveform at pin 8 of the A/V jack (AUDIO OUT) on the JACK board.

Note: When the output level fluctuation is less than -2 dB, adjustment is not required.

2. If necessary, turn the screw (A) (reference), (B) (bent forward) and (C) (azimuth) gradually (at an angle of 45° approx.) in the same direction to obtain the maximum output level.
3. As final fine adjustment, adjust the screw (B) for minimum level fluctuation and the screw (C) for maximum output level.

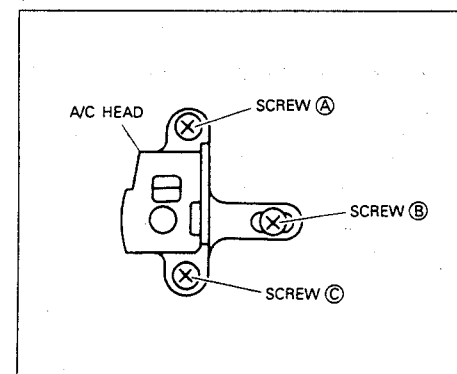


Fig. 2-5-5 A/C head

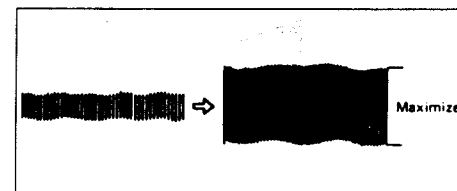


Fig. 2-5-6 Audio signal

2.5.5 Phase of control head (X value)

1. Play back the SP stairstep signal of the alignment tape (MHPE-C or MH-C2) and observe waveform at TP802 (V TP FM) with external trigger from TP502 (DRUN FF) on the MAIN board.
2. Operate the tracking button in the manual tracking mode and confirm that the FM output level is maximum at the center position of the tracking button as shown in Fig. 2-5-8.
3. If necessary, slightly loosen the setscrews ④ and ⑤ and insert the tip of the A/C head positioning tool into the notch and guide hole to move the A/C head fully in the direction of the capstan to the extent.
4. Gradually move the A/C head toward the drum to find the position where the FM output level maximum for the first time (a - b in Fig. 2-5-8).
5. Fine adjust the phase of the A/C head and tighten the setscrews ④ and ⑤ at the point c which is the midpoint between a and b.
6. Play back the LP stairstep signal of the alignment tape (MHPE-LC) and confirm that the FM waveform is maximized at the center detent position of the tracking button.
7. Confirm that the above steps 2. and 6. are satisfactory at the same time.
If not, repeat the steps 3. through 6..

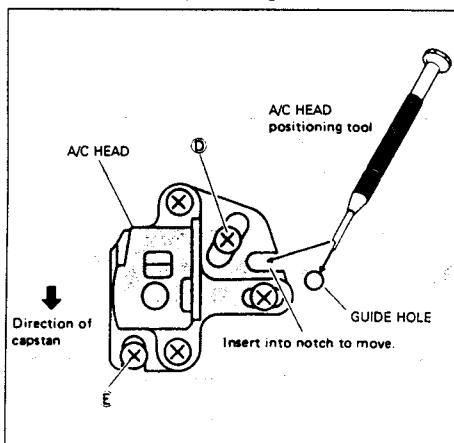


Fig. 2-5-7 Phase of control head

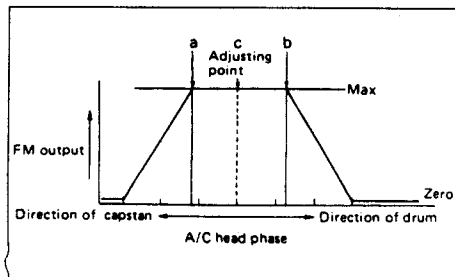


Fig. 2-5-8 Phase adjustment point of control head

2.6 REMARKS

2.6.1 Cleaning

1. For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth or Kimwipe with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

Note: Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

2. For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.
3. After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.6.2 Applying oil and grease

1. Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.
2. For parts and points to apply oil and grease, refer to the exploded view of the mechanism assembly (M3). Table 2-6-1 specifies oil and grease to be used.
3. When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Name	Part No.	Symbol in drawing
Grease	Moriton Grease No. 1	MOS2-C	A
Oil	Cosmo Hydro HV100	YTU94027	B

Table 2-6-1 Specific oil and grease to be used

2.6.3 Checkup

After replacement of the supply reel disk and tension band, make sure to inspect and adjust back tension according to the adjustment procedure of the deck section.

SECTION 3 ELECTRICAL ADJUSTMENT

3.1 DECK SECTION ADJUSTMENT

3.1.1 PREPARATION

1. Precaution

In most cases the deck section is in need of electrical adjustment, it results from replacement of worn mechanical parts or video heads. In the event of malfunction with electrical circuits, trouble-shooting with the aid of proper test instruments must be done first, and then commence necessary repair, replacement and adjustment, etc.

2. Required test equipment

1. Colour TV monitor.
2. AC power adapter (AA-V10 and AA-V6U or equivalent).
3. Oscilloscope (Dual-trace type, for more than 20 MHz).
4. Audio level meter and audio signal generator.
5. Video signal generator.
6. Sweep generator.

Note: For luminance (Y) signal circuit adjustment.

3. Required adjustment tools

Alignment tape for SP interchangeability (MHPE-C or MH-C2)	Alignment tape for N. SP PB Y/C level (MHVE-2C or MH-C2)
Alignment tape for S. SP PB Y/C level (MHVE-2HC or MH-C2H)	Alignment tape for N. SP PB FM audio level (MHAF-1C)
Cable assy (YUJ40097A-8T)	Y/C separator cable (YTU93006)
0.35 mm adjusting driver (YTU94028)	Ultramini VR adjusting driver (YTU93036-2)

Table 3-1-1 Required adjustment tools

4. Colour bar signal, colour bar pattern and video sweep signal

• Colour bar signal

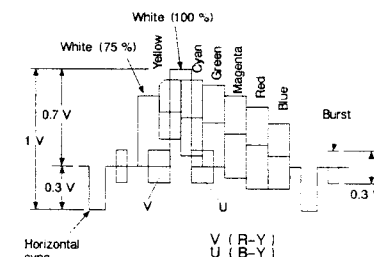


Fig. 3-1-1 Colour bar signal waveform

• Colour bar pattern

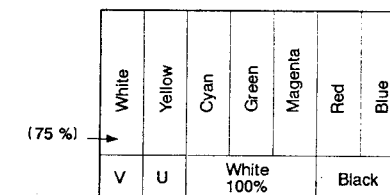


Fig. 3-1-2 Colour bar pattern

• Video sweep signal

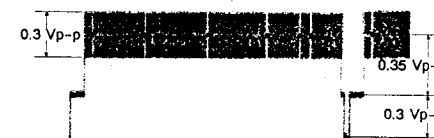


Fig. 3-1-3 Video sweep signal

5. Connection for adjustment

Notes: • No. ②, ③ patch cords to be used in common to the other models.
• Disconnect/connect connector ④ with the most meticulous care not to damage flexible wire.

Connector	No. of pins	Parts Number	Connection
①	4 ↔ 8	YUJ40097A-8T	Y/C Separator cable ↔ JACK CN1

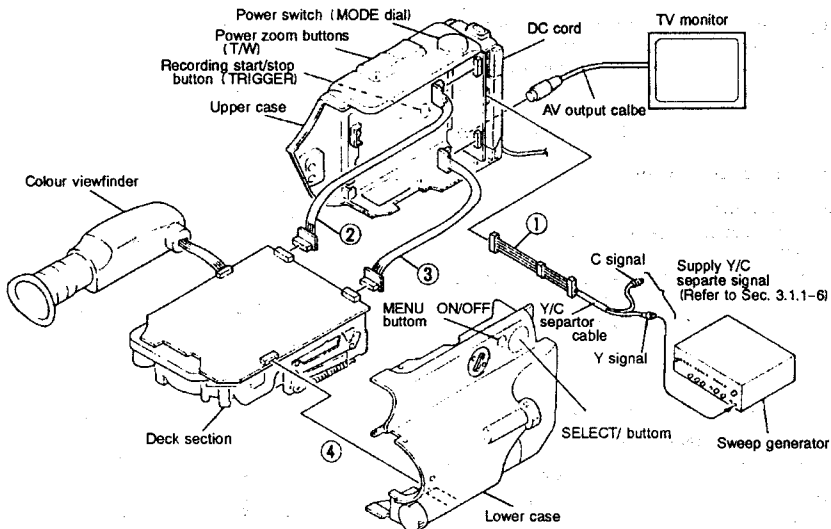


Fig. 3-1-4 Standard setup for deck section adjustment

6. Y/C separate signal supply

Y/C separate signal can be supplied in these three explain as shown in below.

1. Y/C signal supply from a Y/C separator fixture (PUJ25579).

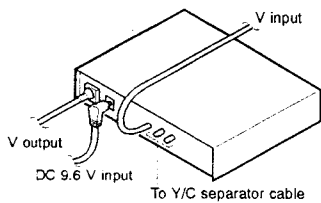


Fig. 3-1-5 Y/C separator

2. Y/C signal supply from through S-VHS video recorder.



Fig. 3-1-6 S-VHS video recorder

3. Y/C signal supply by direct separation of composite signal.

- 1) If such a cable as shown below is prepared, composite signal can be supplied to Y and C circuit.

Notes: • For luminance (Y) signal circuit adjustment.
There is no problem with using composite signal.
• For colour (C) signal circuit.
Picture noise appears in TV monitor, but there is no effect for the adjustment.

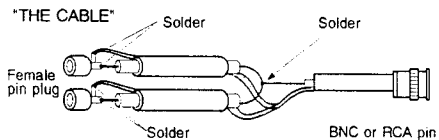


Fig. 3-1-7 Direct separation

7. FOR MODE SET

Many recoding and playback setting are done using the convenient in-viewfinder menu display.
(See INSTRUCTIONS Page 16~17)

3.1.2 REGULATOR CIRCUIT

Notes: • Unless otherwise specified, measurement points and adjustment parts are located on JACK board.
• During adjustment, apply 6.0 VDC from a DC power supply to the jack board holder assembly pins.
(Use care regarding pin polarity.)

1. V. REG 5V

Signal	• --
Mode	• EE
Equipment	• Digital voltmeter
Measurement point	• TP3 (V. REG 5V)
Adjustment part	• R53 (V. REG 5V)
Specification	• 5.00 ± 0.05 V DC

- 1) Connect a digital voltmeter to TP3.
- 2) Adjust R53 for 5.00 V DC.

2. REG 5V

Signal	• --
Mode	• EE
Equipment	• Digital voltmeter
Measurement point	• TP2 (REG 5V)
Adjustment part	• R54 (REG 5V)
Specification	• 5.00 ± 0.05 V DC

- 1) Connect a digital voltmeter to TP2.
- 2) Adjust R54 for 5.00 V DC.

3.1.3 SERVO CIRCUIT

Note: Unless otherwise specified, all measurement points and adjustment parts are located on MAIN board.

1. PB switching point

Signal	• Alignment tape [MHPE-C or MH-C2] • SP stairstep
Mode	• PB • AUTO TRACKING : OFF
Equipment	• Oscilloscope
Measurement point	• TP104 (VIDEO OUT) [JACK board]
EXT. trigger	• TP502 (DRUM FF) (-) slope
Adjustment part	• R67 (PB SW POINT)
Specification	• 6.5 ± 1 H

- 1) Play back the SP stairstep signal of alignment tape.
- 2) Observe waveform at TP104 with external trigger (negative slope) from TP502.
- 3) Adjust R67 so that the trigger point is 6.5H before the fall point of V. sync. signal.

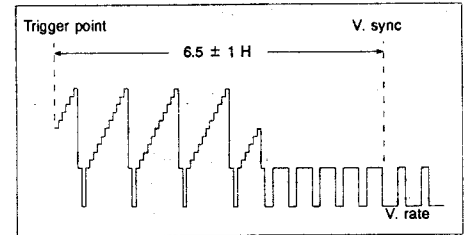


Fig. 3-1-8 PB switching point

3.1.4 N (Normal) VHS LUMINANCE (Y) SIGNAL CIRCUIT

Notes: • Before proceeding to do each adjustment, check the adjustment value.
• Unless otherwise specified, all measurement points and adjustment parts are located on MAIN board.
• Item 1, 2, 3 and 4 uses fixed resistors. If necessary adjustment, these may require replacement with variable resistors to allow adjustment.

1. EE V level

Signal	• Colour bar
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• TP104 (VIDEO OUT) [JACK board]
Adjustment part	• R976 (EE V LEVEL)
Specification	• 1.0 ± 0.2 Vp-p

- 1) Confirm Y level of 1.0 Vp-p at TP104.
- 2) If necessary, replace R976 with the variable resistor (NVP1202-222N) and adjust it for 1.0 Vp-p.

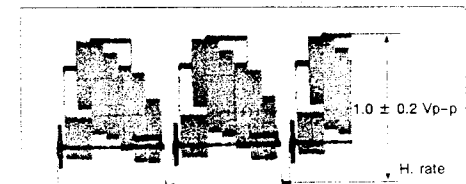


Fig. 3-1-9 EE V level

2. PB Y level

Signal	•Alignment tape [MHVE-2C or MH-C2] •SP colour bar
Mode	•PB
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT) [JACK board]
Adjustment part	•R963 (IN PB Y LEVEL)
Specification	• 1.0 ± 0.2 Vp-p

- 1) Confirm Y level of 1.0 Vp-p at TP104.
- 2) If necessary, replace R963 with the variable resistor (NVP1202-103N) and adjust it for 1.0 Vp-p.

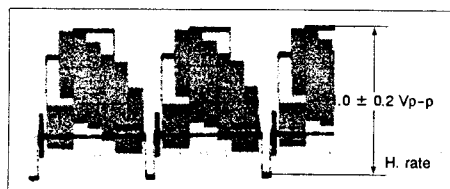


Fig. 3-1-10 PB Y level

3. White & Dark clip

Signal	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•TP505 (EMPHASIS OUT)
Adjustment part	•R953 (IN WHITE CLIP) •R956 (IN DARK CLIP)
Specification	•N WHITE CLIP : 90 ± 10 % •N DARK CLIP : 50 ± 10 %

- 1) Confirm that white clip is 90 % at TP505.
- 2) If necessary, replace R953 with the variable resistor (NVP1202-473N) and adjust it for 85 %.
- 3) Confirm that dark clip is 50 % at TP505.
- 4) If necessary, replace R956 with the variable resistor (NVP1202-472N) and adjust it for 50 %.
- 5) Reconfirm that white clip is 90 % at TP505.

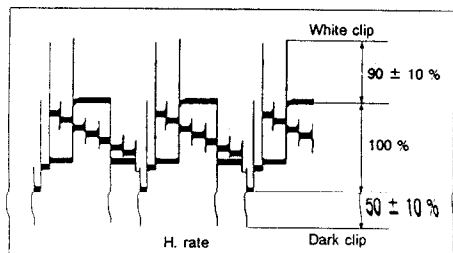


Fig. 3-1-11 White & dark clip

4. Carrier deviation

Note: This adjustment should be performed only when EE and playback of the pre-recorded tape are normal, while the sync at self-recording is distorted (poor carrier set) and S/N is extremely poor (poor deviation) or in spite of recoding with input level of 1.0 Vp-p, output level is too small and S/N is very poor.

• Carrier

Signal	•No input signal
Mode	•REC → PB •SP
Equipment	•Frequency counter
Measurement point	•TP504 (REC FM OUT)
Adjustment part	•R960 (IN CARRIER)
Specification	•3.8 MHz $\pm$ 100 kHz

- 1) Connect a frequency counter to TP504, and confirm that frequency is 3.8 MHz $\pm$ 100 kHz without input signal.
- 2) If necessary, replace R960 with the variable resistor (NVP1202-223N) and adjust it for 3.8 MHz $\pm$ 100 kHz.

• Deviation

Signal	•Colour bar
Mode	•REC → PB •SP
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT) [JACK board]
Adjustment part	•R958 (IN DEVIATION)
Specification	• 1.0 ± 0.2 Vp-p

- 3) Record the colour bar signal and play it to confirm that Y level is 1.0 Vp-p at TP104 in playback.
- 4) If necessary, replace R958 with the variable resistor (NVP1202-103N) and adjust it in recording, and then confirm the result in playback.

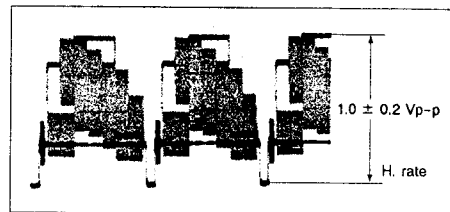


Fig. 3-1-12 Deviation

5. VIDEO EQ

Note: This adjustment should be performed only when playback picture at self-recording is not sharp (low 2 MHz component) or there is B/W reversal (too high 2 MHz component) in it after the upper drum was replaced.

Signal	•Video sweep
Mode	•REC → PB •SP
Equipment	•Oscilloscope
Measurement point	•TP102 (Y OUT) [JACK board]
Adjustment part	•R968 (IN VIDEO EQ)
Specification	• 3.0 ± 0.3 scale divisions

- 1) Connect the S cable to S output terminal.
- 2) Record the video sweep signal in SP mode and play it to observe waveform at TP102.
- 3) Set the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, and adjust R968 so that the 2 MHz marker is for 3.0 scale divisions.

Note: After reassembling the deck and camera sections, record a high contrasty object in SP and LP modes and play the recorded pictures respectively to confirm that there is no B/W reversal in the most contrasty part and the picture is colour and sharp on the whole.

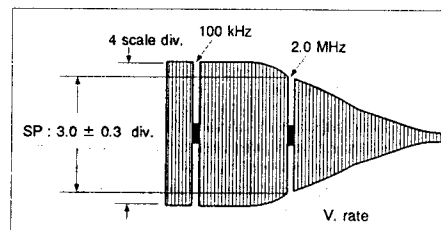


Fig. 3-1-13 Video EQ

3.1.5 S-VHS LUMINANCE (Y) SIGNAL CIRCUIT

- Notes:**
- Before proceeding to do each adjustment, check the adjustment value.
 - Unless otherwise specified, all measurement points and adjustment parts are located on MAIN board.
 - This item uses fixed resistors without item 7. If necessary adjustment, these may require replacement with variable resistors to allow adjustment.

1. S EE Y level

Signal	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•TP102 (Y OUT) [JACK board]
Adjustment part	•R978 (S EE Y LEVEL)
Specification	• 1.00 ± 0.03 Vp-p

- 1) Connect the S cable to S output terminal.
- 2) Confirm Y level of 1.00 Vp-p at TP102.
- 3) If necessary, replace R978 with the variable resistor (NVP1202-222N) and adjust it for 1.00 Vp-p.

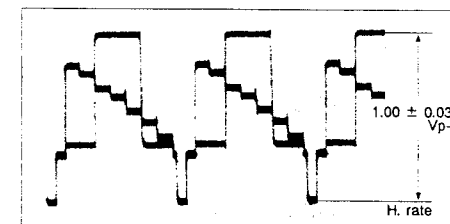


Fig. 3-1-14 S EE Y level

2. S PB Y LEVEL

Signal	•Alignment tape [MHVE-2HC or MH-C2H] •SP colour bar
Mode	•PB
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT) [JACK board]
Adjustment part	•R964 (S PB Y LEVEL)
Specification	• 1.0 ± 0.2 Vp-p

- 1) Confirm Y level of 1.0 Vp-p at TP104.
- 2) If necessary, replace R964 with the variable resistor (NVP1202-103N) and adjust it for 1.0 Vp-p.

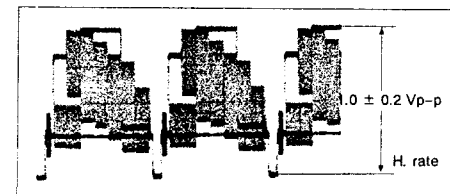


Fig. 3-1-15 S PB Y level

3. Sub emphasis input level

Signal	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•TP508 (SUB EMPHA IN)
Adjustment part	•R951 (SUB EMPHASIS INPUT LEVEL)
Specification	• 0.40 ± 0.04 Vp-p

- 1) Confirm that signal level is 0.40 Vp-p at TP508.
- 2) If necessary, replace R951 with the variable resistor (NVP1202-222N) and adjust it for 0.4 Vp-p.

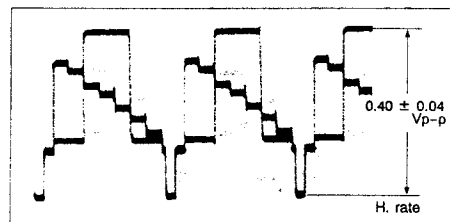


Fig. 3-1-16 Sub emphasis input level

4. YNR input level

Signal	•Alignment tape [MHVE-2HC or MH-C2H] •SP colour bar
Mode	•PB
Equipment	•Oscilloscope
Measurement point	•TP506 (YNR OUT)
Adjustment part	•R965 (YNR INPUT LEVEL)
Specification	•Minimum

- 1) Play the colour bar signal of the alignment tape.
- 2) Confirm that average level of the waveform is minimum.
- 3) If necessary, replace R965 with the variable resistor (NVP1202-222N) and adjust it for minimum output.

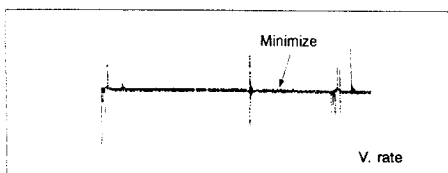


Fig. 3-1-17 YNR input level

5. White & Dark clip

Signal	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•TP505 (EMPHASIS OUT)
Adjustment part	•R954 (S WHITE CLIP) •R955 (S DARK CLIP)
Specification	•S WHITE CLIP : 110 ± 10 % •S DARK CLIP : 70 ± 10 %

- 1) Confirm that white clip is 110 % at TP505.
- 2) If necessary, replace R954 with the variable resistor (NVP1202-223N) and adjust it for 105 %.
- 3) Confirm that dark clip is 70 % at TP505.
- 4) If necessary, replace R955 with the variable resistor (NVP1202-103N) and adjust it for 70 %.
- 5) Reconfirm that white clip is 110 % at TP505.

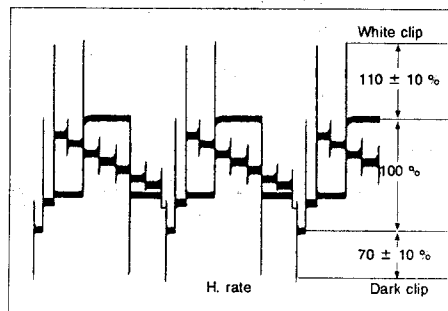


Fig. 3-1-18 White & dark clip

6. Carrier deviation

Note: This adjustment should be performed only when EE and playback of the pre-recorded tape are normal, while the sync at self-recording is distorted (poor carrier set) and S/N is extremely poor (poor deviation) or in spite of recoding with input level of 1.0 Vp-p, output level is too small and S/N is very poor.

• Carrier

Signal	•No input signal
Mode	•REC •SP
Equipment	•Frequency counter
Measurement point	•TP504 (REC FM OUT)
Adjustment part	•R959 (S CARRIER)
Specification	• 5.4 MHz $\pm$ 100 kHz

- 1) Connect a frequency counter to TP504, and confirm that frequency is 5.4 MHz $\pm$ 100 kHz without input signal.
- 2) If necessary, replace R959 with the variable resistor (NVP1202-473N) and adjust it for 5.4 MHz $\pm$ 100 kHz.

• Deviation

Signal	•Colour bar
Mode	•REC → PB •SP
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT) [JACK board]
Adjustment part	•R957 (S DEVIATION)
Specification	• 1.0 ± 0.2 Vp-p

- 3) Record the colour bar signal and play it to confirm that Y level is 1.0 Vp-p at TP104 in playback.
- 4) If necessary, replace R957 with the variable resistor (NVP1202-103N) and adjust it in recording, and then confirm the result in playback.

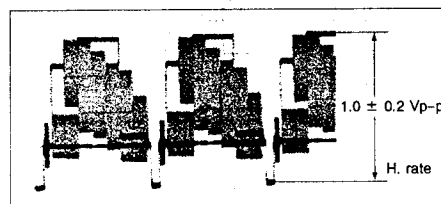


Fig. 3-1-19 Deviation

7. VIDEO EQ

Note: This item should be adjusted when playback of self-recording picture is not sharp (too low 4.00 MHz component) after replacement of the upper drum or when there is B/W reversal (too high 4.00 MHz component).

Signal	•Video sweep
Mode	•REC → PB •SP
Equipment	•Oscilloscope
Measurement point	•TP507 (SUB EMPHA OUT)
Adjustment part	•R966 (S VIDEO EQ)
Specification	• 4.0 ± 0.3 scale divisions

- 1) Record the video sweep signal in SP mode and play it back to observe waveform at TP507.
- 2) Set the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, and adjust R966 so that the 4.00 MHz marker is for 4.0 scale divisions.

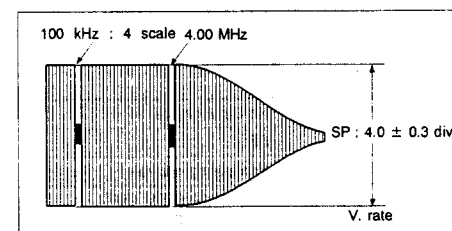


Fig. 3-1-20 Video EQ

B. PIX

Signal	•Video sweep
Mode	•REC → PB •SP
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT) [JACK board]
Adjustment part	•R961 (PIX)
Specification	• 3.0 ± 0.3 scale divisions

- 1) Record the video sweep signal in SP mode and play it to observe waveform at TP104.
- 2) Set the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, and confirm at the 4.00 MHz marker is for 3.0 scale divisions.
- 3) If necessary, replace R961 with the variable resistor (NVP1202-223N) and adjust it in recording, and then confirm the result in playback.

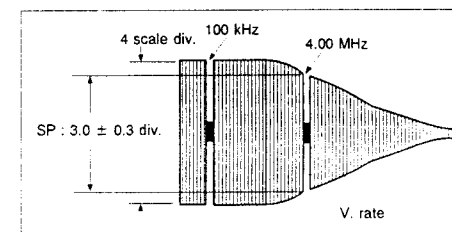


Fig. 3-1-21 PIX

3.1.6 N (Normal) VHS COLOUR SIGNAL CIRCUIT

Notes:

- Before proceeding to do each adjustment, check the adjustmet value.
- Unless otherwise specified, playback and recording modes are normal VHS mode, and all measurement points and adjustment parts are located on MAIN board.

1. 320fh VCO

Signal	•No input signal
Mode	•EE
Equipment	•Frequency counter
Measurement point	•TP515 (SUB BM OUT) •TP501 (GND) •TP514 (VCXO OUT 2) •TP502 (DRUM FF)
Adjustment part	•C639 (320fh VCO)
Specification	•627.0 $\pm$ 2 kHz

- 1) Connect a frequency cunter to TP515.
- 2) Connect a jumping wire between TP501 and TP514.
- 3) Confirm 0 V (L) at TP502. When it is (H), turn off the power once and turn it on again. Repeat this operation until the potential becomes (L).
- 4) Adjust C639 so that the frequency becomes 627.0 $\pm$ 2 kHz.

2. VXO

Signal	•Alignment tape [MHVE-2C or MH-C2] : SP colour bar
Mode	•PB
Equipment	•Oscilloscope
Measurement point	•TP513 (VCXO OUT 1)
Adjustment part	•C623 (VXO)
Specification	•4.433619 MHz $\pm$ 50 Hz

- 1) Connect a frequency cunter to TP513.
- 2) Adjust C623 so that the frequency becomes 4.433619 MHz $\pm$ 50 Hz.

3. REC colour level

Signal	•Alignment tape [MHVE-2C or MH-C2] : SP colour bar •Colour bar
Mode	•PB •REC $\rightarrow$ PB •SP
Equipment	•Oscilloscope
Measurement point	•TP516 (PB COLOUR 2)
EXT. trigger	•TP502 (DRUM FF)
Adjustment part	•R974 (N REC COLOUR LEVEL) [PRE/REC]
Specification	•"A" $\times$ 70 $\pm$ 5 %

- 1) Playback the SP colour bar signal of the alignment tape.
- 2) Observe waveform at TP516 with external trigger from TP502.
- 3) Note of the higher channel level for "A".

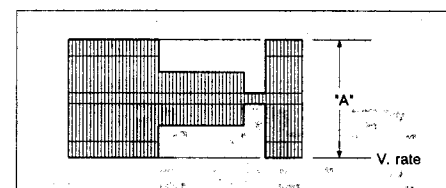


Fig. 3-1-22 PB colour level - 1

- 4) Record the colour bar signal in SP mode, and play it to observe waveform at TP516. Adjust R974 repeatedly in recording so that the higher channel level is "A" $\times$ 70 % in playback.

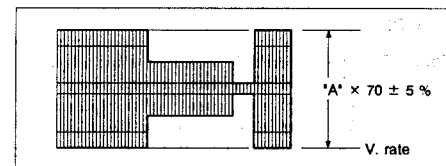


Fig. 3-1-23 PB colour level - 2

3.1.7 S-VHS COLOUR SIGNAL CIRCUIT

Notes:

- Before proceeding to do each adjustment, check the adjustmet value.
- Unless otherwise specified, playback and recording modes are S-VHS mode, and all measurement points and adjustment parts are located on MAIN board.

1. REC colour level

Signal	•Alignment tape [MHVE-2HC or MH-C2H] : SP colour bar •Colour bar
Mode	•PB •REC $\rightarrow$ PB •SP
Equipment	•Oscilloscope
Measurement point	•TP516 (PB COLOUR 2)
EXT. trigger	•TP502 (DRUM FF)
Adjustment part	•R973 (S REC COLOUR LEVEL)
Specification	•"A" $\times$ 110 $\pm$ 5 %

- 1) Playback the SP colour bar signal of the alignment tape.
- 2) Observe waveform at TP516 with external trigger from TP502.
- 3) Note of the higher channel level for "A".

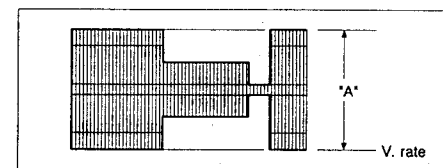


Fig. 3-1-24 PB colour level - 1

- 4) Record the colour bar signal in SP mode, and play it to observe waveform at TP516. Adjust R973 repeatedly in recording so that the higher channel level is "A" $\times$ 110 % in playback.

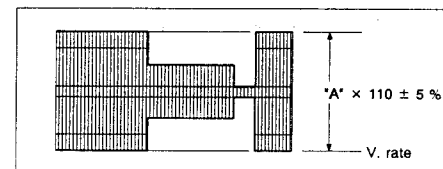


Fig. 3-1-25 PB colour level - 2

2. Pilot burst level

Signal	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•TP510 (PB COLOUR 1)
Adjustment part	•R971 (PILOT BURST LEVEL)
Specification	•Same level

- 1) Connect an oscilloscope to TP510.
- 2) Adjust R971 so that pilot burst level becomes same burst level.
- 3) Perform the pilot burst phase adjustment.

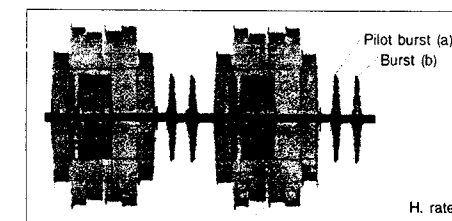


Fig. 3-1-26 Pilot burst level

3. Pilot burst phase

Signal	•Colour bar
Mode	•EE
Equipment	•Vectorscope
Measurement point	•TP510 (PB COLOUR 1)
EXT. S.C	•TP513 (VCXO OUT 1)
Adjustment part	•C583 (PILOT BURST PHASE)
Specification	•270°

- 1) Connect the vectorscope to TP510.
- 2) Synchronize the vectorscope with the TP513.
- 3) Adjust C583 so that burst phase difference becomes 270°.
- 4) Reconfirm, above item 2 Pilot burst level adjustment. If necessary, repeat adjustment item 2 and 3.

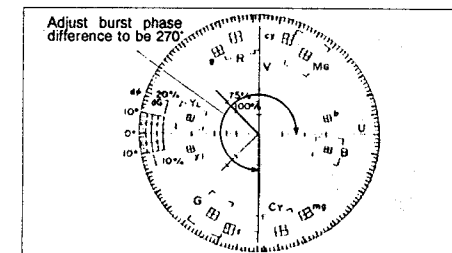


Fig. 3-1-27 Pilot burst phase

4. 0.5 H jump det

Signal	•No input signal
Mode	•REC → PB •SP
Equipment	•Frequency counter
Measurement point	•TP106 (2Fh VCO OUT) (JACK board) •TP107 (Fh PHASE COMP OUT) (JACK board) •TP111 (1/2 Vcc) (JACK board) •TP110 (GND) (JACK board)
Adjustment part	•R172 (2Fh VCO) (JACK board)
Specification	•30.0 ± 0.2 KHz

- 1) Connect the jump wire between TP111 and TP107.
- 2) Connect a frequency counter to TP106 and TP110.
- 3) Play the pre-recorded tape without signal.
- 4) Confirm that frequency is 30.0 ± 0.2 kHz.
- 5) If necessary, adjust R172 to obtain 30.0 ± 0.2 kHz.
- 6) Remove the jump wire.

5. 0.5 H CCD gain

Signal	•Colour bar
Mode	•REC→PB •LP
Equipment	•Oscilloscope
Measurement point	•TP104 (VIDEO OUT)
Adjustment part	•R171 (0.5 H CCD GAIN) (JACK board)
Specification	•Equal Y level

- 1) Record the colour bar signal in LP mode, and then play it back.
- 2) Observe the waveform at TP104.
- 3) Make a note of Y signal level "A" in the normal playback mode.
- 4) Record the colour bar signal in LP mode, and then play it back in Search mode.
- 5) Adjust R171 to equal the Y signal level to "A".

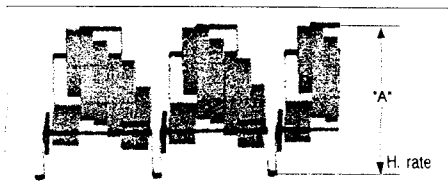


Fig. 3-1-28 0.5 H CCD gain

3.1.8 AUDIO CIRCUIT

Notes: • *Before proceeding to do each adjustment, check the adjustment value.*
• *Unless otherwise specified, all measurement points and adjustment parts are located on MAIN board.*

1. Bias level

Signal	•No input signal
Mode	•REC •SP
Equipment	•Audio level meter
Measurement point	•TP301 (REC BIAS) •TP302 (REC BIAS GND)
Adjustment part	•R301 (BIAS LEVEL)
Specification	•-50 dBs (7.0 mVp-p, 2.5 mVrms)

- 1) Connect an audio level meter to respective ends of TP301 and TP302.
- 2) Adjust R301 to obtain -50 dBs (7.0 mVp-p, 2.5 mVrms) in SP REC mode.

2. Audio REC level

Signal	•1 kHz : Sine wave
Mode	•EE •REC → PB •SP
Equipment	•Audio level meter
Measurement point	•AV jack pin 8 (JACK board)
Adjustment part	•R325 (AUDIO REC LEVEL)
Specification	•-5.5 dBs (1.17 Vp-p, 0.41 Vrms)

- 1) In EE mode, input 1 kHz, -20 dBs (0.22 Vp-p, 0.078 Vrms) sine wave to pin 1 (L ch) and pin 2 (R ch) of CN5 of the MAIN board.
- 2) In playback of self-recorded signal, adjust R325 so that signal level at pin 8 of the AV jack of the JACK board is -5.5 dBs (1.17 Vp-p, 0.41 Vrms).

3.1.9 HI-FI AUDIO CIRCUIT

Notes: • Before proceeding to do each adjustment, check the adjustment value.

• Unless otherwise specified, all measurement points and adjustment parts are located on MAIN board.

• Item 1 and 2 uses fixed resistors. If necessary adjustment, these may require replacement with variable resistors to allow adjustment.

1. REC FM f_0

Signal	•No input audio signal
Mode	•REC •SP
Equipment	•Frequency counter
Measurement point	•IC401 pin 50 (L ch) or TP401 round •IC401 pin 64 (R ch) or TP402 round
Adjustment part	•R407 (L CARRIER) •R408 (R CARRIER)
Specification	•1.4 MHz $\pm$ 5 kHz : R407 •1.8 MHz $\pm$ 5 kHz : R408

- 1) Connect a frequency counter to pin 50 of IC401, and confirm that the frequency is 1.4 MHz $\pm$ 5 kHz.
- 2) If necessary, replace R407 with the variable resistor (NVP1202-103N), and adjust them for 1.4 MHz.
- 3) Connect a frequency counter to pin 64 of IC401, and confirm that the frequency is 1.8 MHz $\pm$ 5 kHz.
- 4) If necessary, replace R408 with the variable resistor (NVP1202-103N), and adjust them for 1.8 MHz.

2. Deviation

Signal	•1 kHz : Sine wave
Mode	•EE •REC $\rightarrow$ PB •SP
Equipment	•Audio level meter
Measurement point	•AV jack pin 6 (AUDIO OUT L-ch) [JACK board] •AV jack pin 8 (AUDIO OUT R-ch) [JACK board]
Adjustment part	•R411 (L DEVIATION) •R412 (R DEVIATION)
Specification	•-6 dBs (1.1 Vp-p, 0.39 Vrms)

- 1) Supply a sine wave of 1 kHz, -20 dBs (0.22 Vp-p, 0.078 Vrms) to pin 1 (L ch) and pin 2 (R ch) of CN5 of the MAIN board.
- 2) In playback of self-recorded signal, confirm that L-ch and R-ch output levels at pin 6 and pin 8 of the AV jack is of the JACK board is -6 dBs (1.1 Vp-p, 0.39 Vrms).
- 3) If necessary, replace R411 and R412 with the variable resistor (NVP1202-222N) respectively, and adjust them for -6 dBs.

3. N HI-FI REC level

Signal	•No input audio signal •Colour bar •AUTO TRACKING : OFF
Mode	•REC $\rightarrow$ PB •LP
Equipment	•Audio level meter
Measurement point	•JIG CN pin 3 (A TP FM)
Adjustment part	•R451 (N HI-FI REC LEVEL)
Specification	•80 $\pm$ 10 mVp-p

- 1) Supply a colour bar signal with no audio signal, record only luminance (Y) signal for LP mode with an VHS tape.
- 2) In playback of self-recorded picture, adjust R451 so that the lower FM level of two channels at pin 3 of the JIG CN is 80 mVp-p.

4. S HI-FI REC level

Signal	•No input audio signal •Colour bar •AUTO TRACKING : OFF
Mode	•REC $\rightarrow$ PB •LP
Equipment	•Audio level meter
Measurement point	•JIG CN pin 3 (A TP FM)
Adjustment part	•R455 (S HI-FI REC LEVEL)
Specification	•80 $\pm$ 10 mVp-p

- 1) Supply a colour bar signal with no audio signal, record only luminance (Y) signal for LP mode with an VHS tape.
- 2) In playback of self-recorded picture, adjust R455 so that the lower FM level of two channels at pin 3 of the JIG CN is 80 mVp-p.

ADJUSTMENT ELEMENT LOCATION FOR DECK SECTION

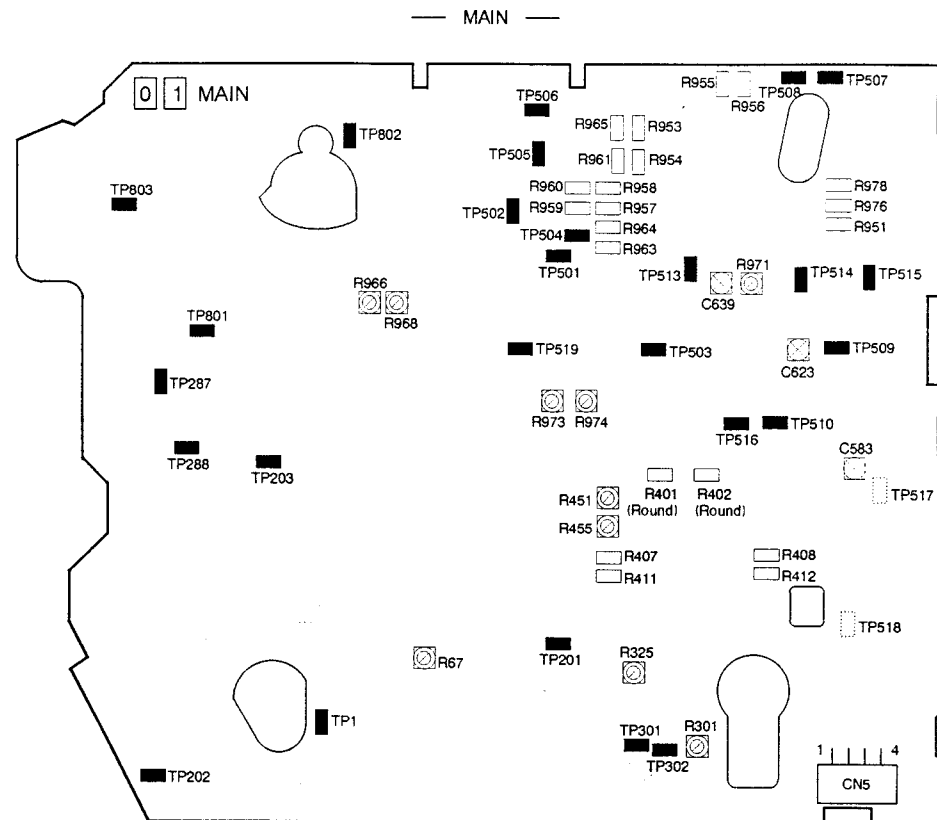


Fig. 3-1-29 Adjustment element location for MAIN board

R67	PB SW POINT	R958	N DEVIATION	C623	VXO	TP506	YNR OUT
R301	BIAS LEVEL	R959	S CARRIER	C639	320Hz VCO	TP507	SUB EMPHA OUT
R325	AUDIO PB LEVEL	R960	N CARRIER	TP1	CKTS	TP508	SUB EMPHA IN
R407	L CARRIER	R961	PIX	TP201	PB CTL PULSE	TP509	BPF OUT
R408	R CARRIER	R963	N PB Y LEVEL	TP203	V ENV	TP510	PB COLOUR 1
R411	L DEVIATION	R964	S PB Y LEVEL	TP202	CAPSTAN FG	TP513	VXCO OUT 1
R412	R DEVIATION	R965	YNR INPUT LEVEL	TP287	DRUM FG	TP514	VXCO OUT 2
R451	N HI-FI REC LEVEL	R966	S VIDEO EQ	TP288	DRUM PG	TP515	SUB BM OUT
R455	S HI-FI REC LEVEL	R968	N VIDEO EQ	TP301	REC BIAS	TP516	PB COLOUR 2
R951	SUB EMPHA INPUT LEVEL	R971	PILOT BURST LEVEL	TP302	REC BIAS GND	TP517	DL STOPPER
R953	N WHITE CLIP	R973	S REC COLOUR LEVEL	TP501	GND	TP518	DL STOPPER
R954	S WHITE CLIP	R974	N REC COLOUR LEVEL	TP502	DRUM FF	TP519	REC COLOUR
R955	S DARK CLIP	R976	EE V LEVEL	TP503	C SYNC	TP801	V REC CH 1
R956	N DARK CLIP	R978	S EE Y LEVEL	TP504	REC FM OUT	TP802	TP FM
R957	S DEVIATION	C583	PILOT BURST PHASE	TP505	EMPHASIS OUT	TP803	A REC CH 2

■ ADJUSTMENT ELEMENT LOCATION FOR DECK SECTION

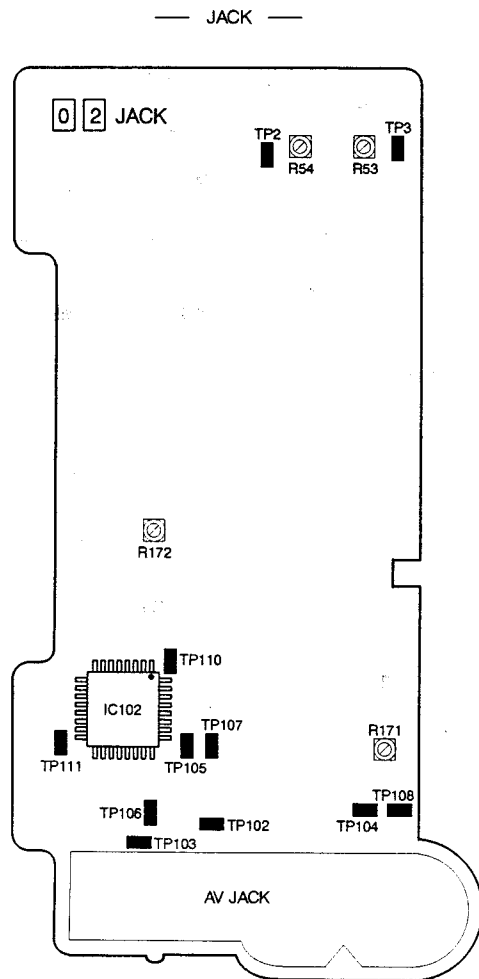


Fig. 3-1-30 Adjustment element location for JACK board

R53	V. REG 5V	TP2	REG 5V	TP106	21H VCO OUT
R54	REG 5V	TP3	V. REG 5V	TP107	1H PHASE COMP OUT
R171	0.5H CCD GAIN	TP102	Y OUT	TP108	S COLOUR OUT
R172	0.5H JUMP DET	TP103	C OUT	TP110	GND
		TP104	VIDEO OUT	TP111	1/2 Vcc
		TP105	X2 VCO		

■ ADJUSTMENT ELEMENT LOCATION FOR COLOUR VIEWFINDER

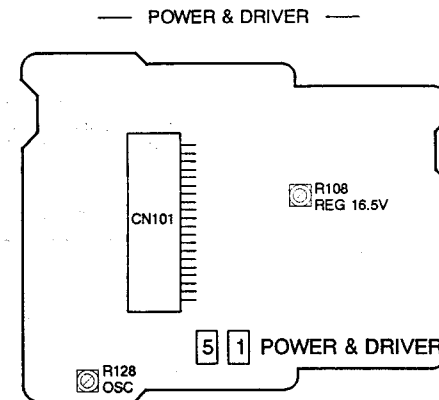


Fig. 3-2-1 Adjustment element location for POWER & DRIVER board

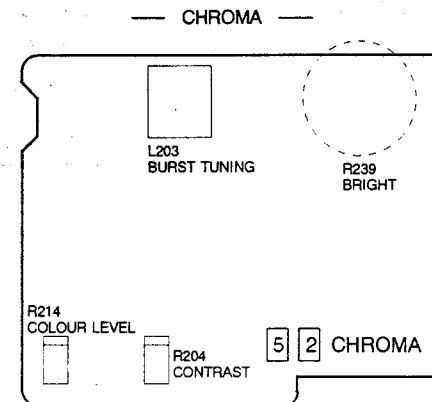


Fig. 3-2-2 Adjustment element location for CHROMA board

3.2 CAMERA SECTION ADJUSTMENT

3.2.1 PREPARATION

The camera section of this model does not contain adjustment controls (VR). General camera system adjustment are not required. However, if CPU board need replacement, please use original E²PROM on to new board. Then adjustment are not required. And if parts such as the following need replacment, special computerized adjustment are required. Please contact to JVC service for detaile information.

- OP block
- E²PROM (IC12 of CPU board)

3.2.2 COLOUR VIEWFINDER SECTION ADJUSTMENT

Notes: •Connect for deck checks and adjustments as indicated in Fig.3-1-4 when performing adjustments.

• Use care not to damage or soil the LCD window, LCD panel and plugs during adjustments.

• During adjustments, set R239 (brightness control) of the CHROMA board to the center detent position.

1. REG 16.5V

Subject	• -
Mode	• EE
Equipment	• Digital voltmeter
Measurement point	• CN102 pin 1 [POWER & DRIVER board]
Adjustment part	• R108 (REG 16.5V) [POWER & DRIVER board]
Specification	• 16.5 ± 0.1 V DC

1) Connect a digital voltmeter to pin 1 of the CN102.

2) Adjust R108 for 16.5 V DC.

2. OSC

Subject	• -
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC104 pin 6 [POWER & DRIVER board]
Adjustment part	• R128 (OSC) [POWER & DRIVER board]
Specification	• 2.7 ± 0.1 V DC

1) Observe waveform at pin 6 of the IC104.

2) Adjust R128 so that DC level of "A" (between the waveform center and GND, see Fig. 3-2-1) of a waveform becomes 2.7 V DC.

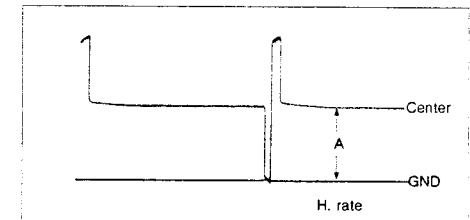


Fig. 3-2-3 OSC

3. Contrast

Subject	• Gray scale
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• CN201 pin 2 (B out) [CHROMA board]
Adjustment part	• R204 (CONTRAST) [CHROMA board]
Specification	• 2.4 ± 0.2 V

1) Pick up the gray scale pattern and observe waveform at pin 2 of CN201.

2) Adjust R204 so that white level of the portion "A" (see Fig. 3-2-2) of a waveform becomes 2.4 V DC.

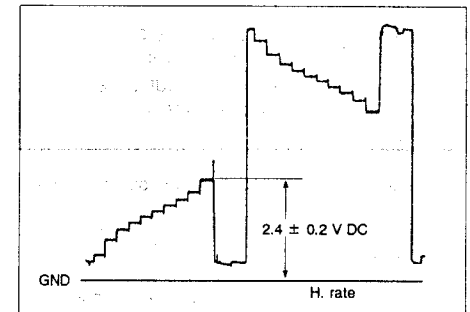


Fig. 3-2-4 Contrast

4. Burst tuning

Subject	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•CN201 pin 2 (B OUT) [CHROMA board]
Adjustment part	•L203 (BURST TUNING) [CHROMA board]
Specification	•Minimize fluctuation

- 1) Pick up the colour bar pattern and observe waveform at pin 2 of CN201.
- 2) Adjust L203 to minimize fluctuation of the blue out waveform.

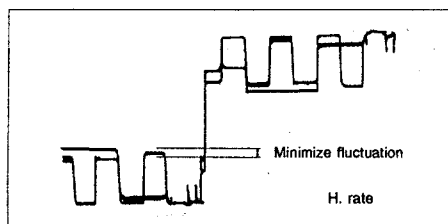


Fig. 3-2-5 Burst tuning

5. Colour level

Subject	•Colour bar
Mode	•EE
Equipment	•Oscilloscope
Measurement point	•NC201 pin 2 (B OUT) [CHROMA board]
Adjustment part	•R214 (COLOUR LEVEL) [CHROMA board]
Specification	•2.0 ± 0.2 V DC

- 1) Pick up the colour bar pattern and observe waveform at pin 2 of CN201.
- 2) Adjust R214 to obtain 2.0 V DC as the blue level of the waveform.

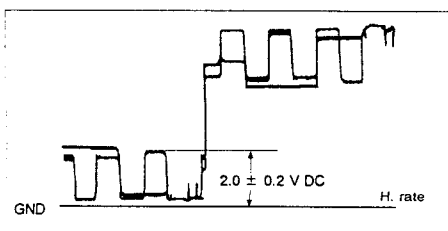


Fig. 3-2-6 Colour level

SECTION 4 CHARTS AND DIAGRAMS

SCHEMATIC DIAGRAM NOTES

Safety precautions

The Components identified by the symbol Δ are critical for safety. For continued safety, replace safety critical components only with manufactures recommended parts.

1. Schematic diagram values

Unless otherwise specified.

- 1) All resistance values are in ohms. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: K Ω (1000 Ω), M: M Ω (1000K Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values in μ H, (m: mH).
- 4) All diodes are 1SS133 or MA165, (refer to parts list).

2. Indications

AUX : Active only at high.

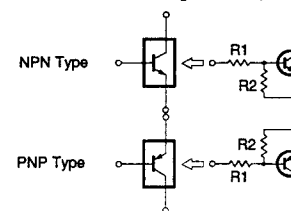
AUX : Active only at low.

ES Δ Active only at low for electronic switch.

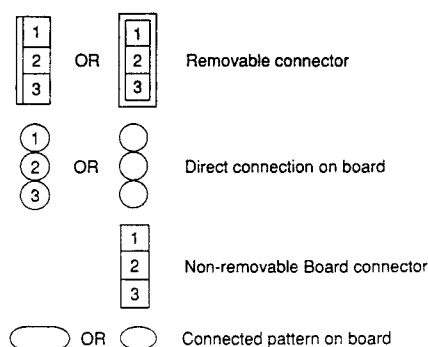
ES Δ Active only at high for electronic switch.

Digital transistor :

The digital transistor includes built in resistors. It features small size and high reliability.

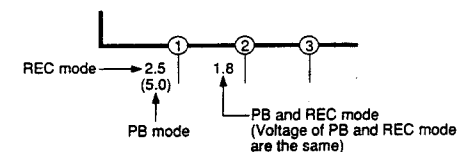


3. Interpreting Connector indications



4. Voltage measurement

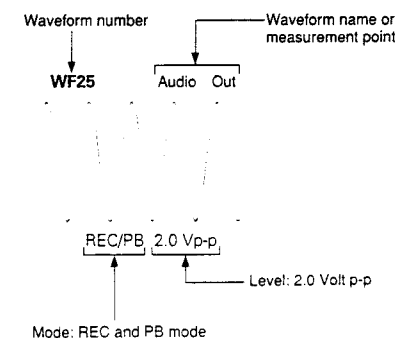
- 1) Voltage chart
REC : Color bar signal in SP mode, normal VHS mode.
PB : Alignment tape, color bar SP mode, normal VHS mode.
— : Unmeasurable or unnecessary to measure.
- 2) Audio section
REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode.
PB : REC then playback it.
- 3) Movie Camera Section
Measured as the grey scale pattern and color bar pattern which lighted up brightly is shot in the E-E mode.
- 4) Schematic diagram
Voltage Indications for REC and PB mode on Schematic are as shown below.



5. Waveform measurement

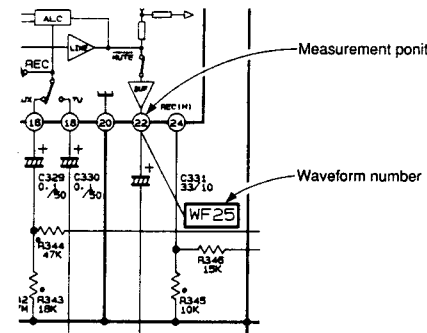
- 1) Waveform chart
REC : Color bar signal in SP mode, normal VHS mode.
PB : Alignment tape, color bar SP mode, normal VHS mode.
- 2) Audio Section
REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode.
PB : REC then playback it.
- 3) Movie Camera Section
Measured as the grey scale or color bar pattern which lighted up brightly is shot in the E-E mode.

Example:



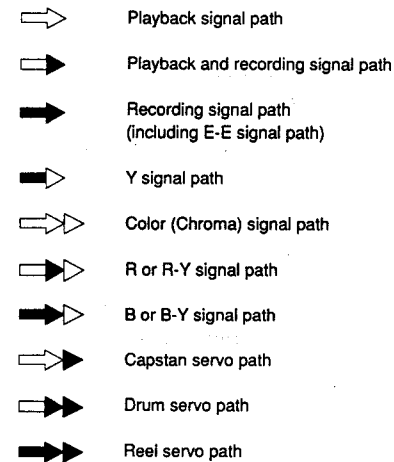
4) Schematic diagram

Waveform indications on schematic are as shown below.



6. Signal path Symbols

The arrows indicate the signal path as follows.



CIRCUIT BOARD NOTES

1. Color indications

- 1) Foil side :
Foil side patterns are indicated at gray shading.
- 2) Component side :
Component side patterns are indicated at RED shading.

Notes:

Foil side (B side) ;

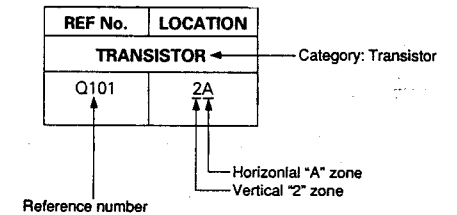
Parts on the foil side seen from foil face (pattern face) are indicated.

Component side (A side) ;

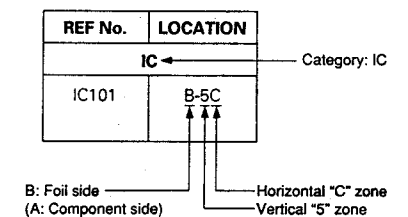
Parts on the component side seen from component face (parts face) are indicated.

2. Location of SMC indications

- 1) Single pattern :



- 2) Double pattern :



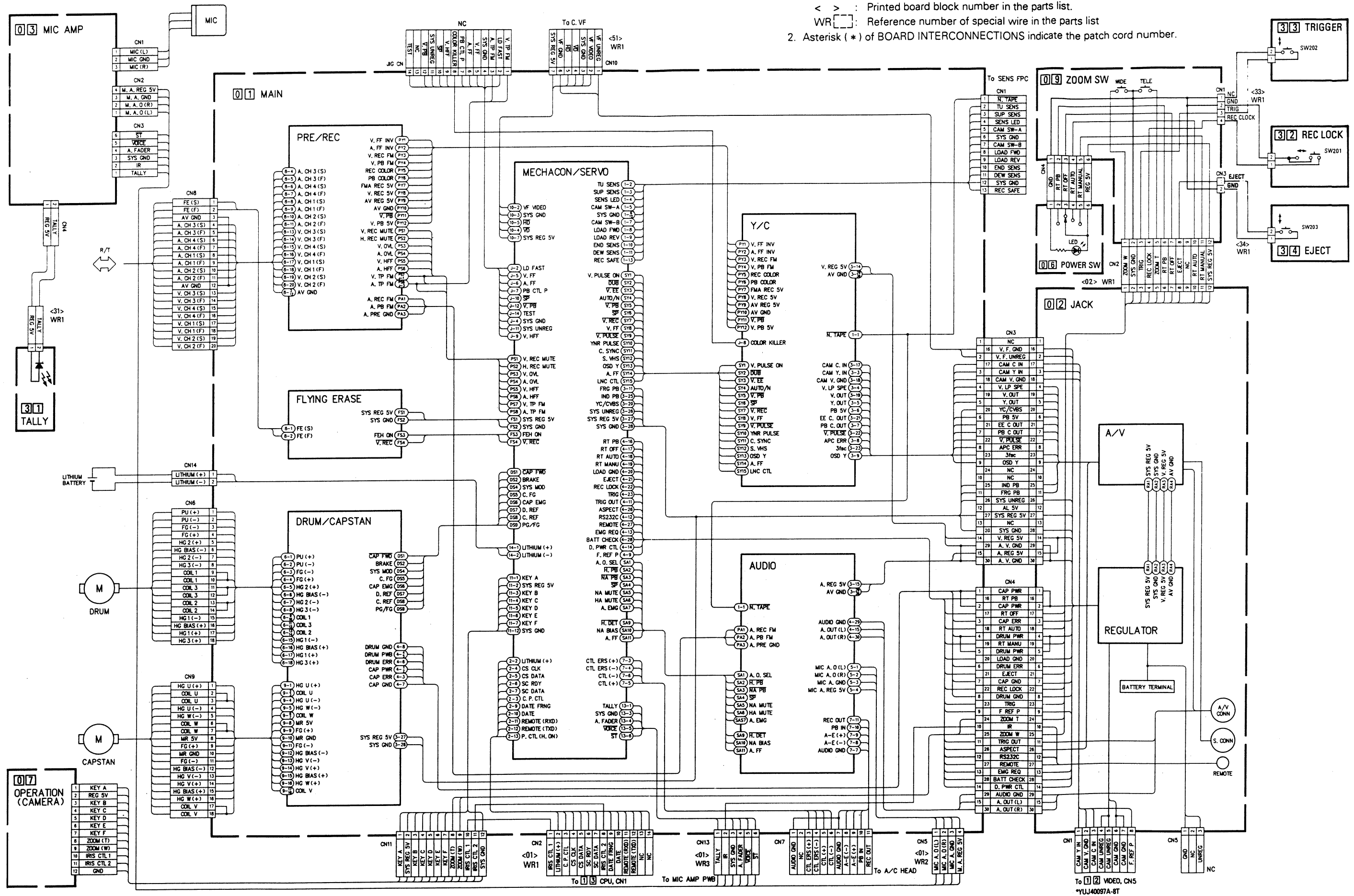
Notes:

- 1) For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION No. 82054C (May 1991).
- 2) For repairing SMC (Surface Mounted Components), please refer to the VIDEO SERVICE GUIDE No. VTS81001.

4.1 BOARD INTERCONNECTION (DECK)

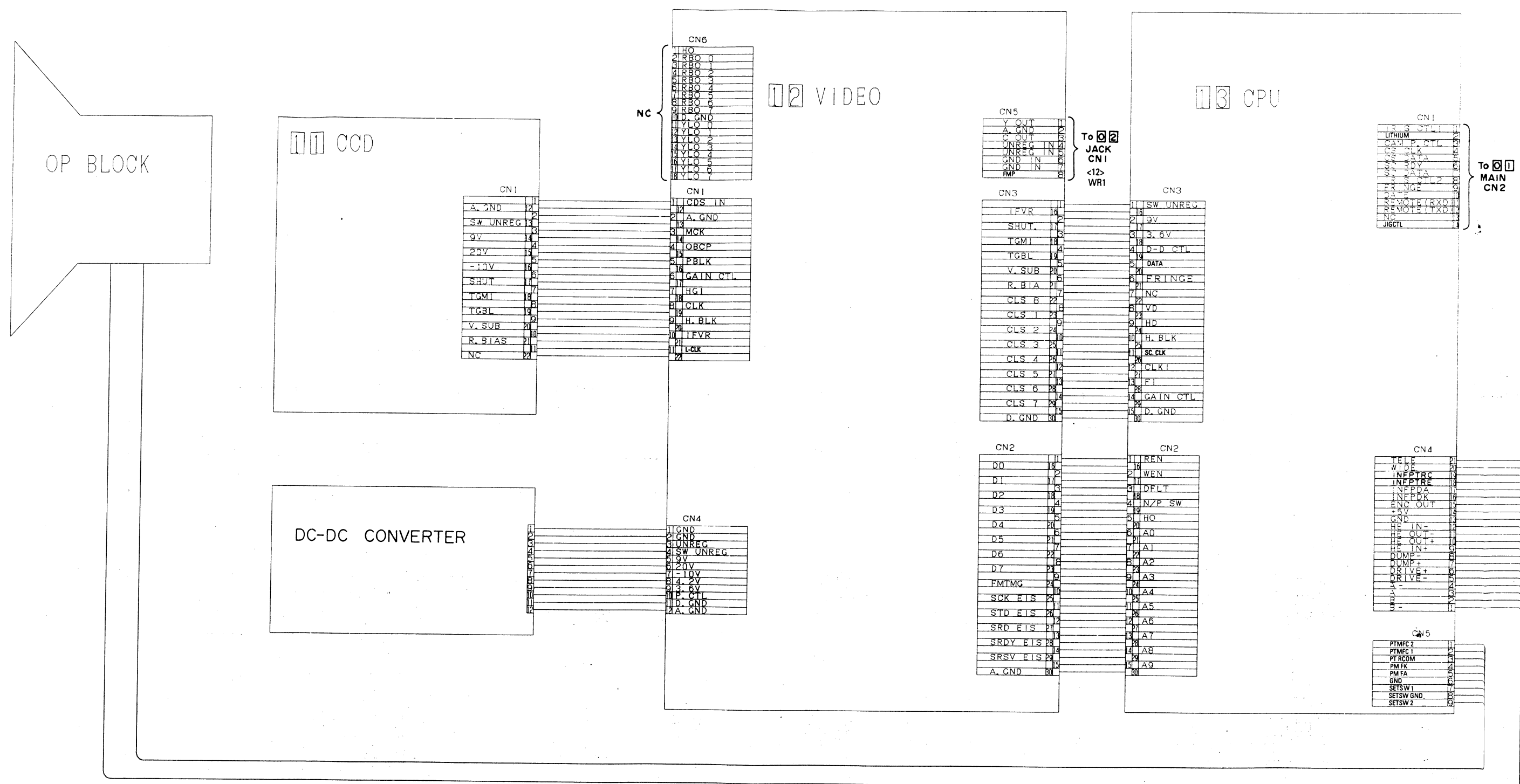
NOTES:

- < > WR [] indications on BOARD INTERCONNECTIONS are as shown below.
 < > : Printed board block number in the parts list.
 WR [] : Reference number of special wire in the parts list
- Asterisk (*) of BOARD INTERCONNECTIONS indicate the patch cord number.

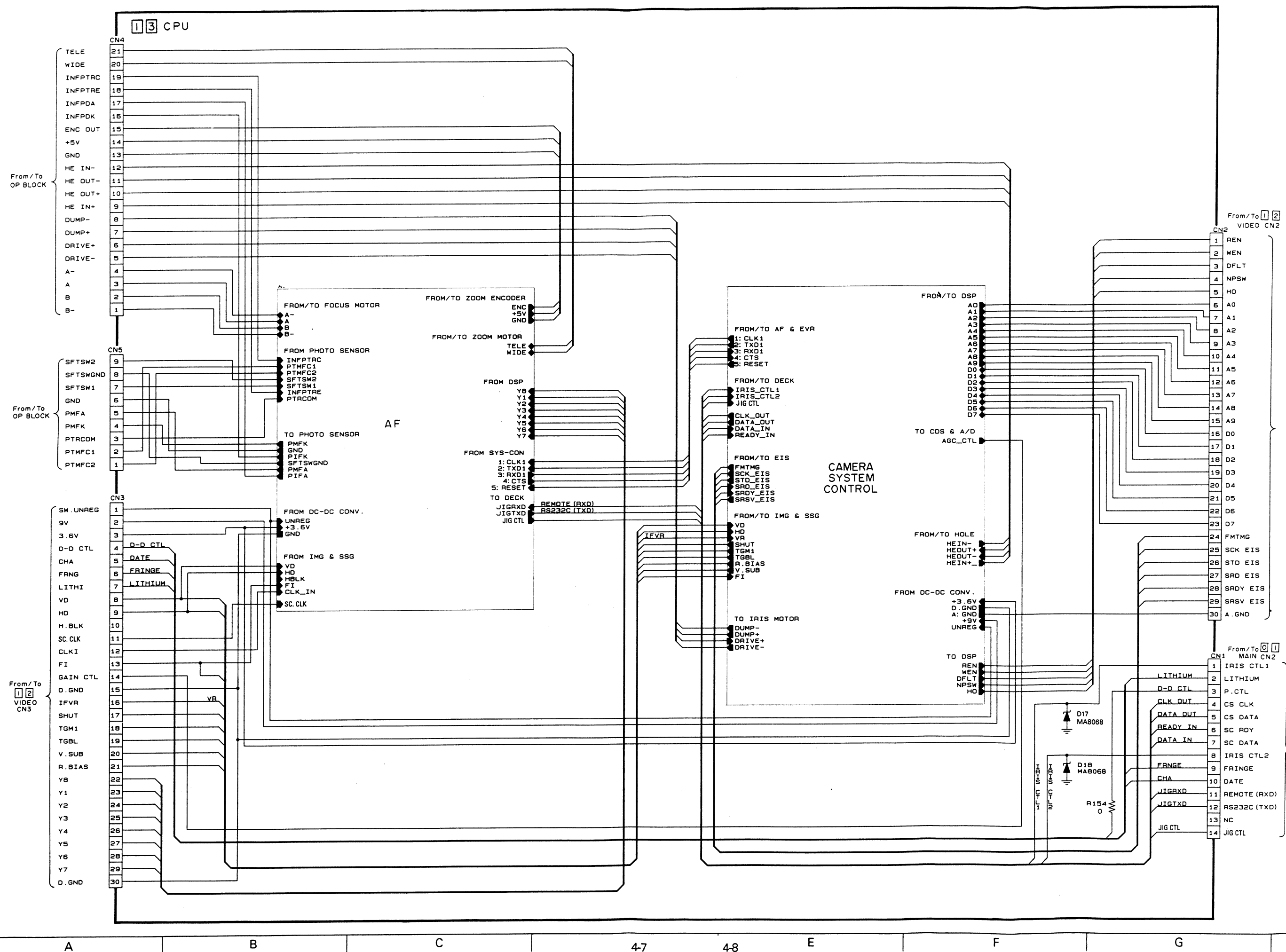


*YUJ40097A-8T

4.2 BOARD INTERCONNECTION (CAMERA)



4.3 CPU OVERALL WIRING



6



4

3

2

1

A

B

C

4-9

4-10

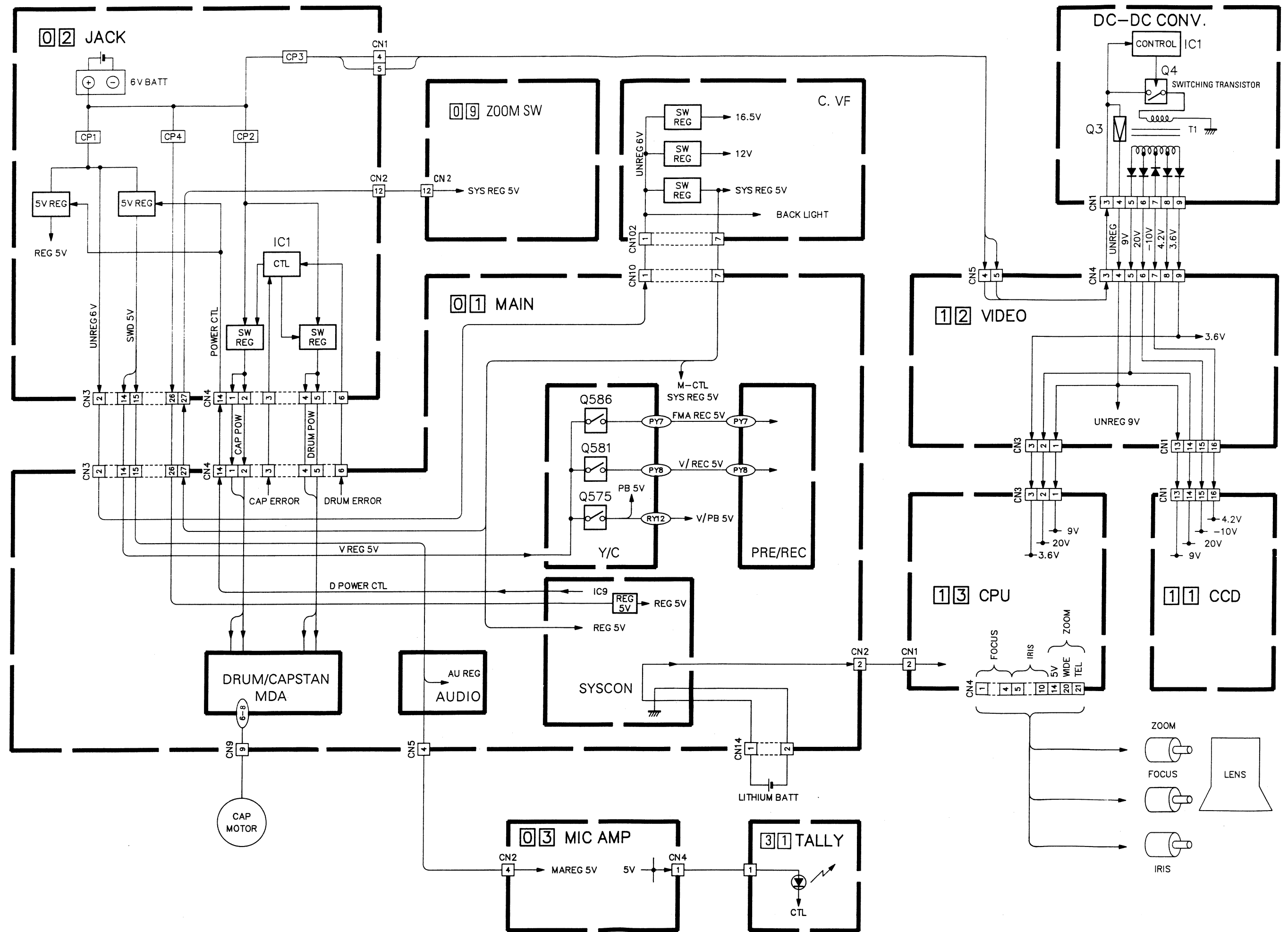
E

Р

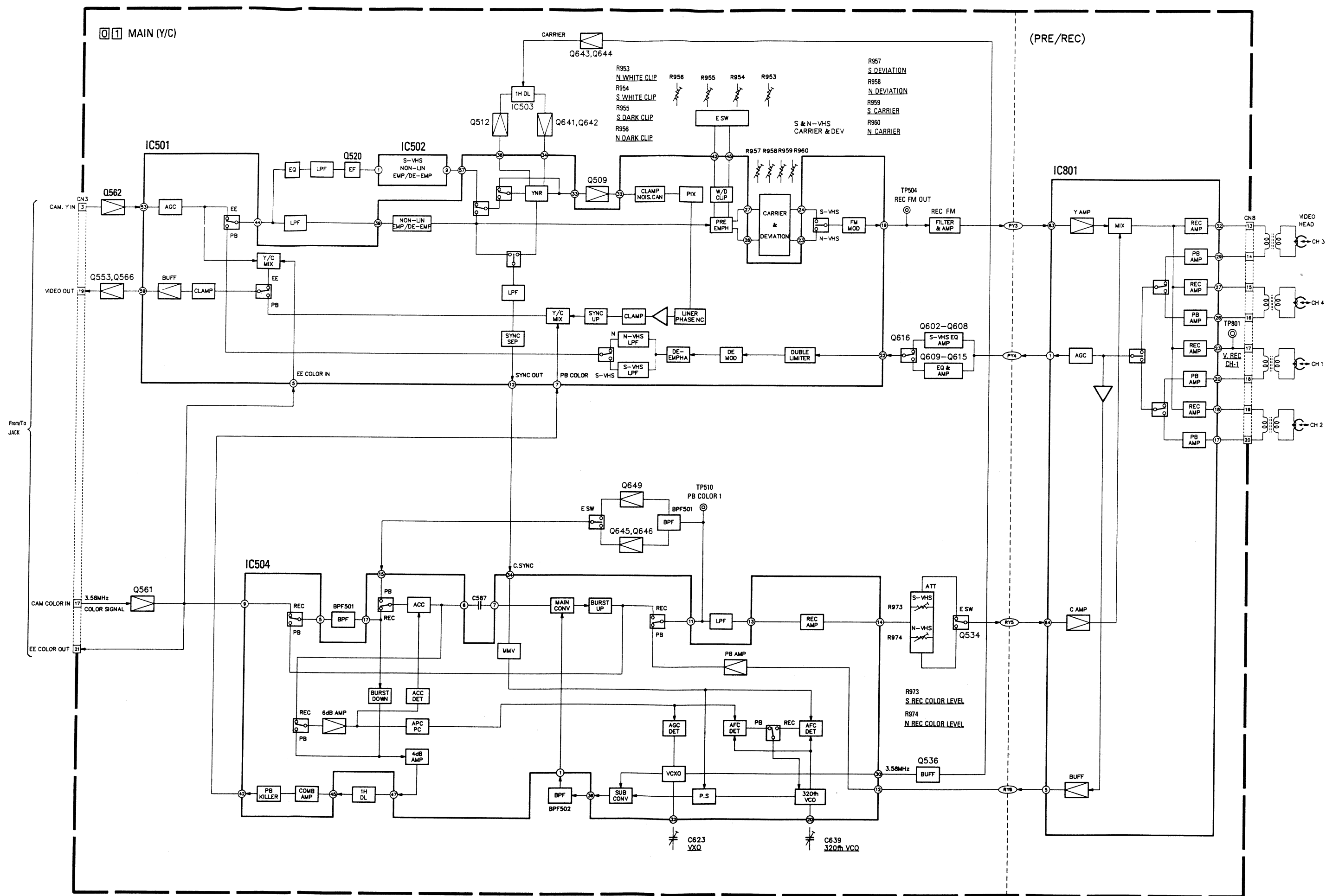
G

H

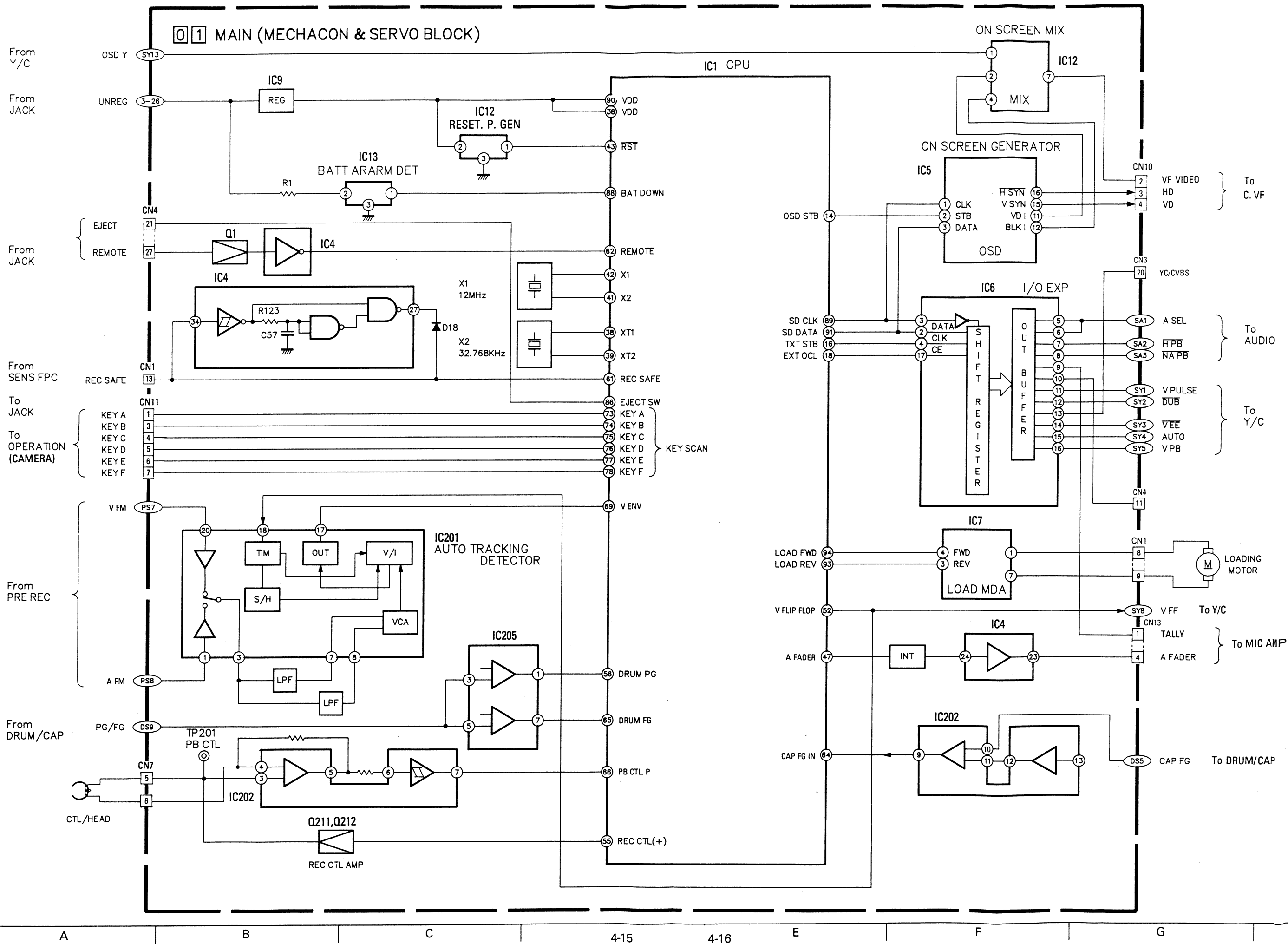
4.5 POWER SYSTEM BLOCK DIAGRAM



4.6 VIDEO BLOCK DIAGRAM



4.7 MECHACON & SERVO BLOCK DIAGRAM





4

3 |

2 |

1

A

B

C

4-17

4-18

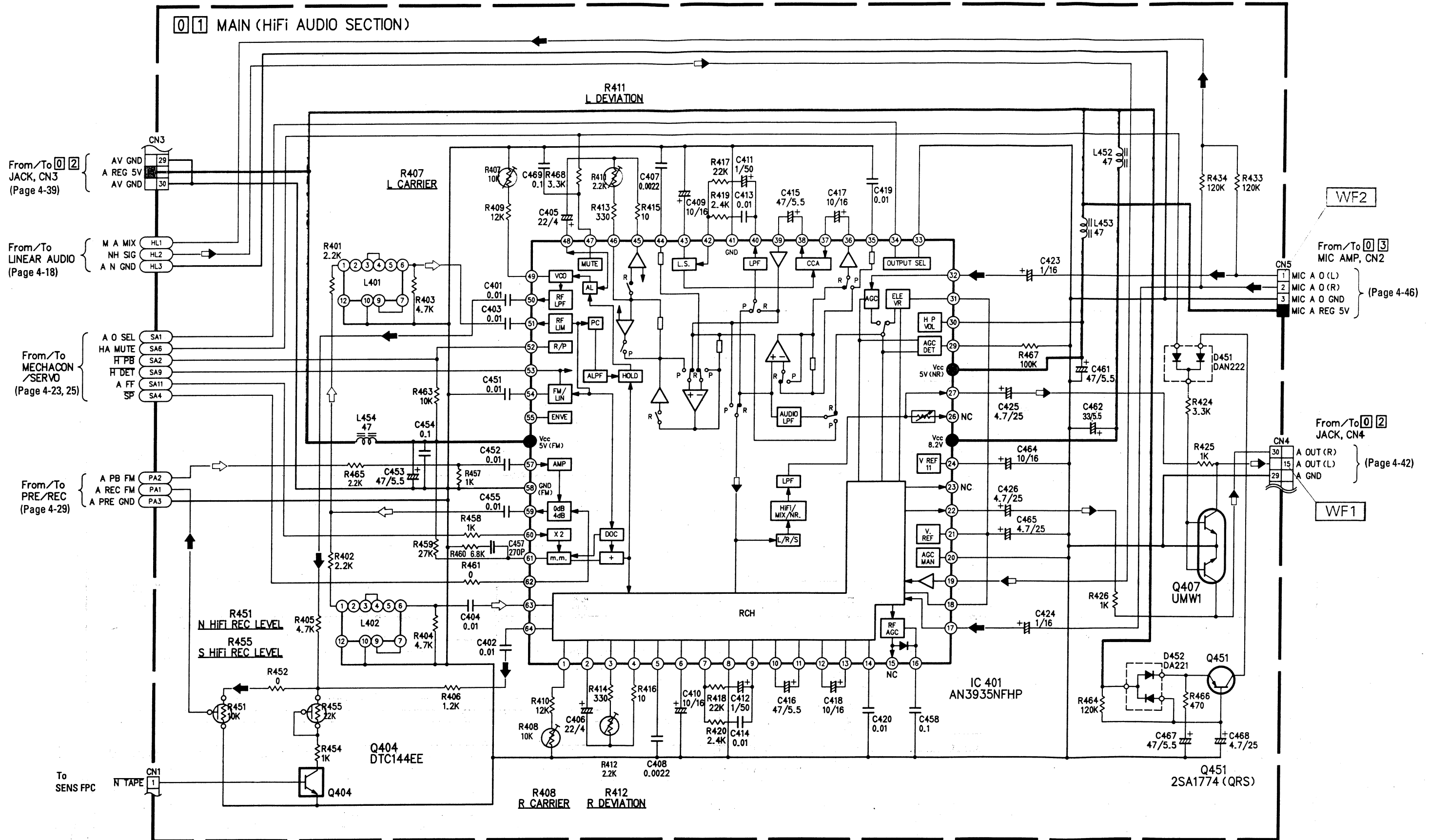
F

F

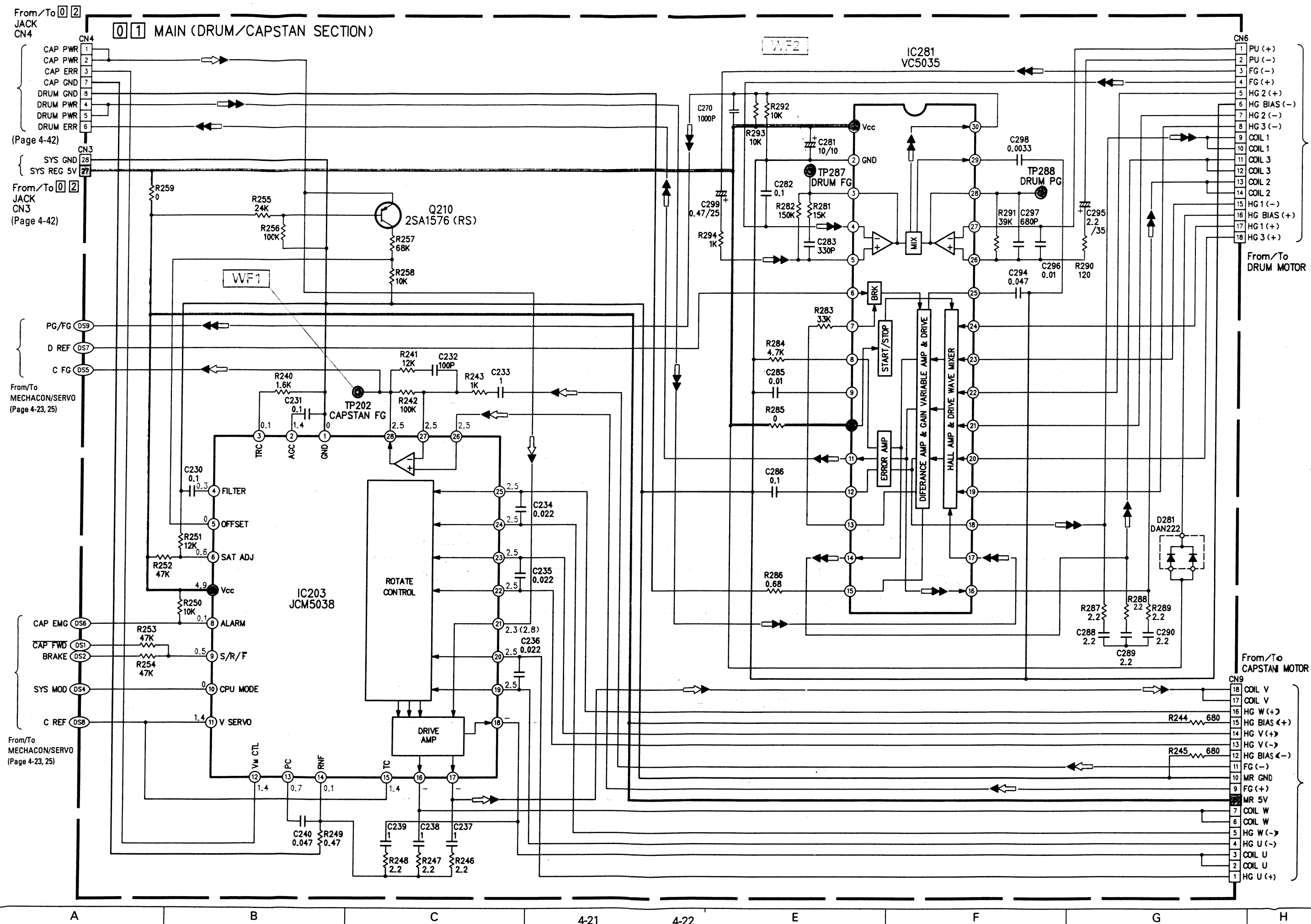
G

—

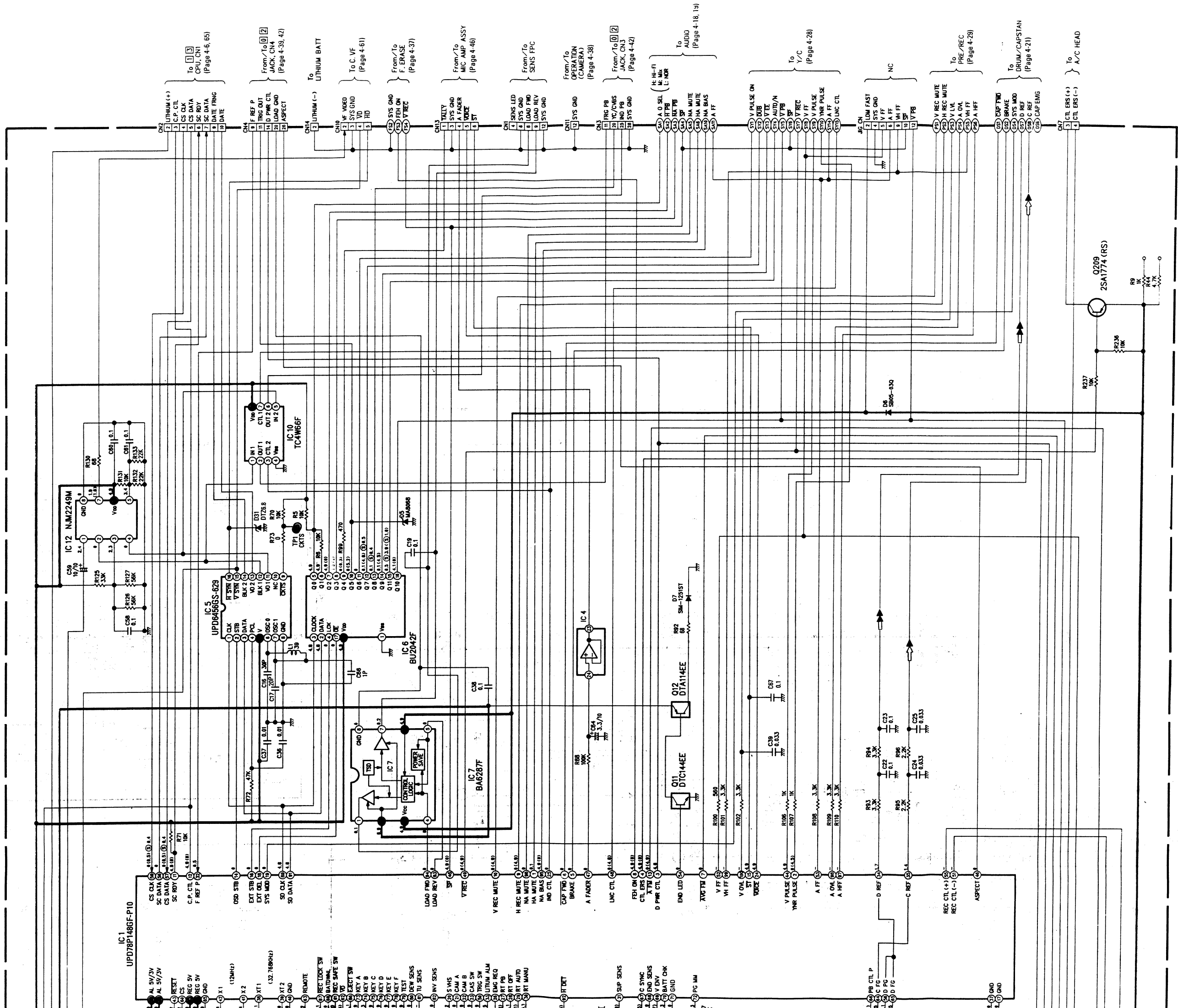
4.9 Hi-Fi AUDIO SCHEMATIC DIAGRAM



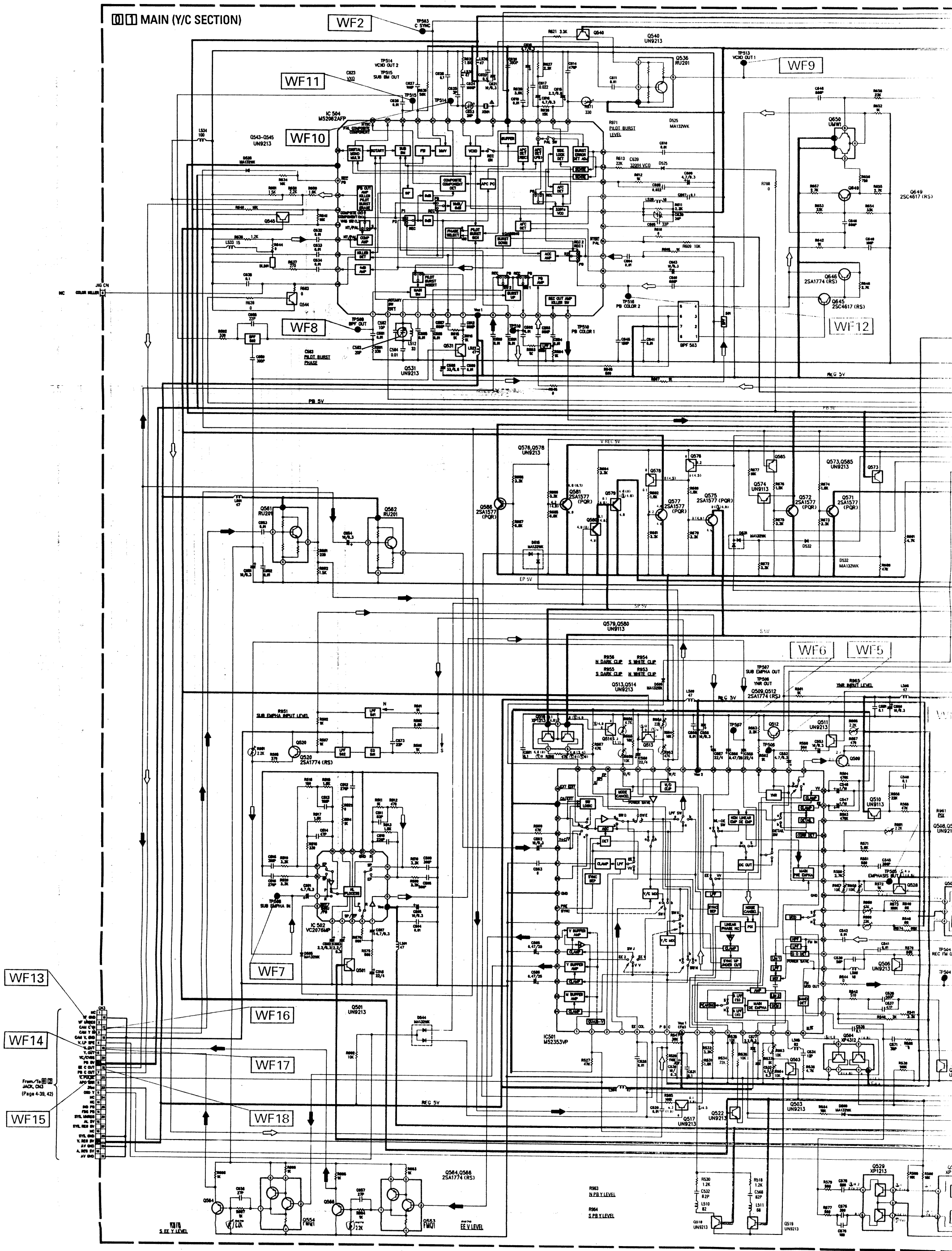
4.10 DRUM/CAPSTAN SCHEMATIC DIAGRAM

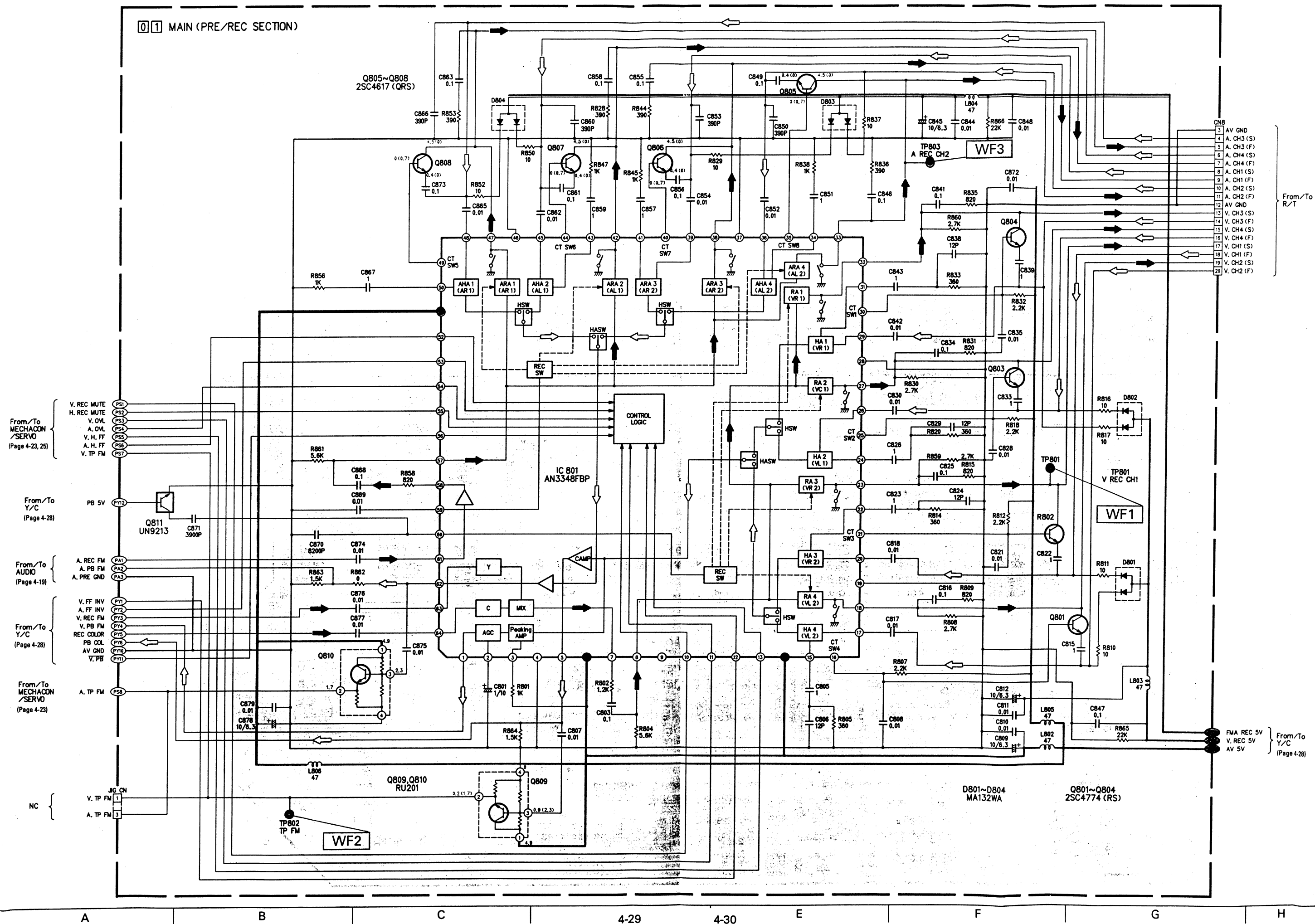




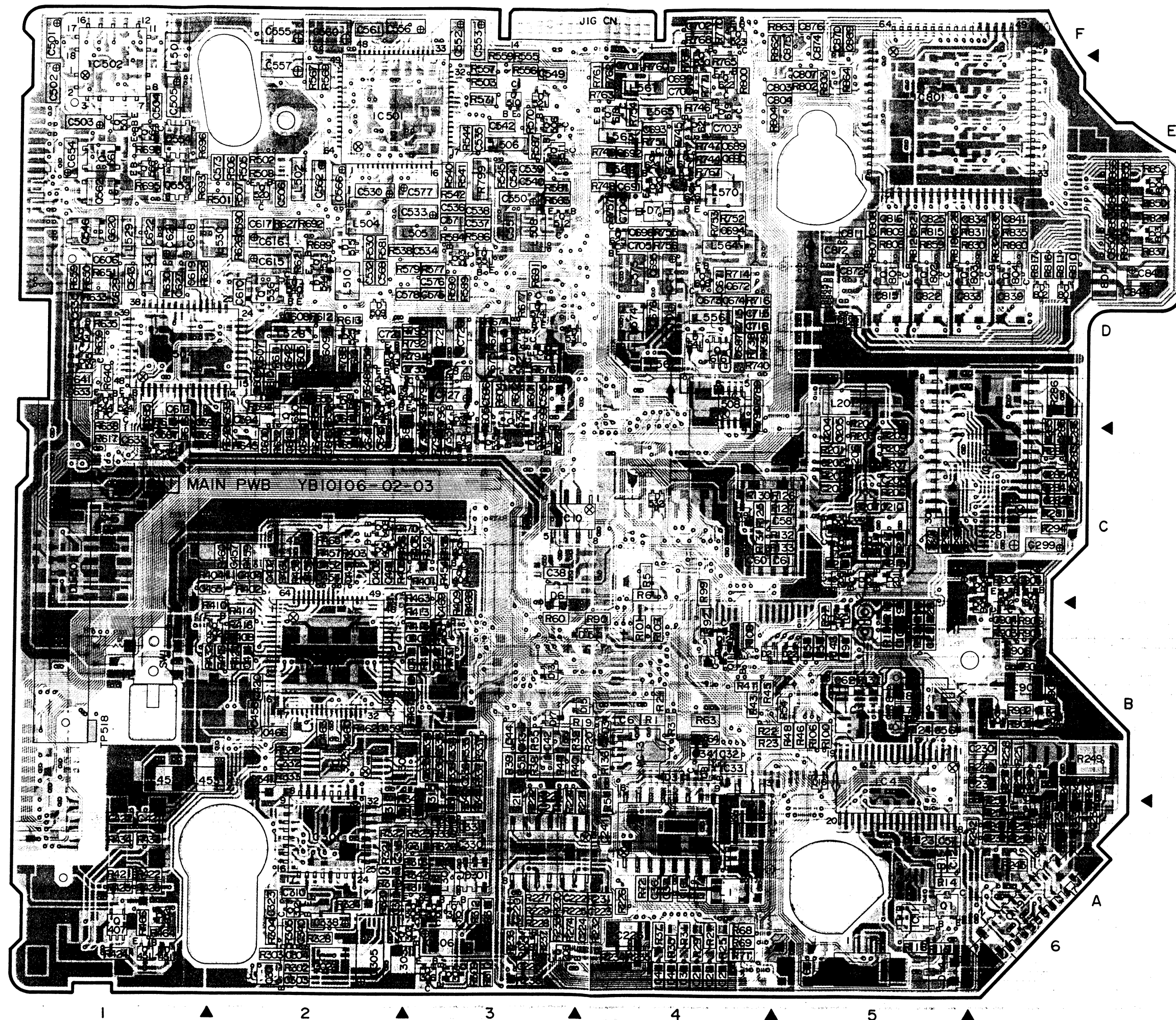


4.12 Y/C SCHEMATIC DIAGRAM





**FOIL SIDE
(B)**



PARTS LOCATION GUIDE

<01>MAIN BOARD

REF. NO.	LOCATION	0529	A-3D	D7	B-4E	R63	B-4B	R243	A-6A	R416	B-2B	R570	B-3E	R682	A-3D
IC		0530	A-3D	D13	B-3B	R64	B-4B	R244	B-6A	R417	B-3B	R571	B-3E	R683	A-3D
IC1	A-4B	0531	B-1C	D14	B-5A	R65	A-4A	R245	B-6A	R418	B-2B	R572	A-3E	R684	A-3D
IC2	B-5B	0533	B-3C	D15	B-4B	R66	A-4B	R246	B-6B	R419	B-3B	R573	A-3E	R685	A-3C
IC4	B-5B	0534	B-3D	D16	B-5B	R68	B-4A	R247	B-6B	R420	B-2B	R574	A-3E	R686	A-4C
IC5	B-4A	0535	B-3C	D17	B-3B	R69	B-4A	R248	B-6B	R421	B-1A	R575	A-1E	R687	A-4D
IC6	A-4C	0536	B-2D	D18	A-5A	R70	A-4A	R249	B-6B	R422	B-1A	R576	A-1E	R688	A-4D
IC7	A-3C	0540	B-2D	D19	B-4C	R71	B-4A	R250	B-6B	R424	B-1A	R577	B-3D	R689	B-2D
IC9	B-4A	0543	B-1D	D20	A-5A	R72	B-4A	R251	B-6B	R425	B-1A	R578	A-3E	R691	B-3B
IC10	B-3C	0544	B-1D	D21	B-4B	R73	A-4A	R252	B-6B	R426	B-1A	R579	B-2D	R692	B-2E
IC11	B-5A	0545	B-1D	D22	B-5B	R88	A-5B	R253	B-6B	R431	B-3B	R580	A-2E	R693	B-1E
IC12	A-4C	0546	B-1D	D25	B-5B	R90	B-4B	R254	B-6A	R432	B-1B	R581	B-2D	R694	A-1E
IC13	B-4B	0551	B-3D	D26	A-5B	R92	B-4B	R255	B-6A	R433	B-1A	R582	A-2E	R695	B-1E
IC201	A-5C	0553	B-1E	D30	A-4C	R93	B-5B	R256	B-6A	R434	B-1A	R584	B-3D	R696	B-1E
IC202	B-3A	0554	B-1E	D31	B-4B	R94	B-5B	R257	B-6B	R452	B-3C	R585	A-2E	R697	A-1E
IC203	A-6A	0561	B-1E	D201	B-5C	R95	A-5B	R258	B-6B	R453	B-3C	R586	B-3D	R698	B-1E
IC205	A-5A	0562	B-1E	D204	A-3A	R96	A-5B	R259	A-5A	R454	B-3C	R587	B-3E	R703	A-4E
IC281	B-5C	0564	B-1E	D205	A-3A	R97	B-5B	R269	A-5A	R456	B-2C	R589	B-3D	R704	A-4E
IC301	B-2A	0566	B-1E	D281	A-5C	R98	B-5B	R270	A-5A	R457	B-2C	R590	B-3D	R705	A-4E
IC302	B-2B	0571	B-3D	D301	B-3A	R99	B-4C	R271	A-5A	R458	B-2C	R591	A-1D	R706	A-4E
IC401	B-2B	0572	B-3D	D451	B-1A	R100	B-5B	R272	A-5A	R459	B-2C	R592	A-1D	R707	A-4E
IC501	B-2E	0573	B-2D	D452	B-1A	R101	B-4B	R273	A-5A	R460	B-2C	R593	A-2D	R708	A-4D
IC502	B-1E	0574	B-3D	D505	A-1F	R102	A-4B	R274	B-3A	R461	B-2C	R594	B-2D	R709	A-4D
IC503	A-3D	0575	A-3D	D506	A-2E	R106	B-5B	R277	A-3A	R462	B-2B	R596	A-3D	R710	A-4E
IC504	B-1D	0576	A-3D	D508	A-2E	R107	B-4B	R281	B-6C	R463	B-3C	R597	A-3D	R711	A-4E
IC508	B-4D	0577	A-3D	D509	B-2D	R108	B-4B	R282	B-6C	R464	B-1A	R598	A-3C	R712	A-4D
IC801	B-5E	0578	A-3D	D515	B-2D	R109	A-3B	R283	B-6C	R465	B-2C	R699	B-3D	R713	A-4D
		0579	A-3D	D517	A-2E	R110	A-3B	R284	B-6C	R466	B-1A	R600	A-3D	R714	B-4D
		0580	A-3D	D518	A-5A	R114	A-5A	R285	B-6C	R467	B-3B	R601	B-3D	R715	B-4D
		0581	A-3D	D521	B-3E	R115	A-5A	R286	B-6D	R468	B-3B	R602	B-3D	R716	B-4D
		0585	B-3D	D525	B-2D	R116	A-5A	R287	A-6D	R469	A-2C	R603	A-3D	R721	A-4E
		0586	A-4D	D526	A-1E	R117	A-5A	R288	A-6D	R470	B-2C	R604	B-3D	R722	A-4E
Q1	B-5A	0602	A-4E	D528	A-5A	R118	B-5A	R289	A-6D	R501	B-1E	R605	B-3D	R723	A-4E
Q8	B-4B	0603	A-4E	D531	B-3D	R119	B-5A	R290	A-5C	R502	B-2E	R606	A-3C	R724	A-4E
Q11	B-4B	0604	A-4E	D532	B-4C	R122	A-5A	R291	A-5C	R503	B-3E	R607	A-1C	R725	A-4E
Q12	B-4B	0605	A-4D	D541	B-4D	R123	B-5A	R292	B-5C	R504	A-3E	R608	A-1C	R726	A-4E
Q203	B-5C	0608	B-4D	D544	B-2D	R124	B-5B	R293	B-5C	R505	B-2E	R609	B-2D	R727	A-4D
Q204	B-5C	0609	A-4E	D801	B-6D	R125	B-4C	R294	B-6C	R506	B-2E	R610	B-2D	R728	A-4D
Q205	B-5C	0610	A-4E	D802	B-6D	R126	B-4C	R302	B-2A	R507	B-2E	R611	B-2D	R729	A-4E
Q206	B-5C	0611	A-4E	D803	B-6D	R127	B-4C	R303	B-2A	R508	B-2E	R612	B-2D	R730	A-4D
Q207	B-5C	0612	A-4D	D804	B-6E	R130	B-4C	R304	B-2A	R509	A-1F	R613	B-2D	R731	A-4D
Q208	B-3A	0615	A-4D	D901	B-6B	R131	B-4C	R305	B-2A	R510	A-1E	R614	B-2D	R732	A-4D
Q209	B-3A	0616	B-4D			R132	B-4C	R309	B-3A	R511	A-1F	E615	B-1C	R733	A-4D
Q210	B-6A	0617	B-4E			R133	B-4C	R310	B-3A	R512	A-1F	R616	B-1C	R734	A-4D
Q211	A-4A	0618	B-4E			R136	B-4B	R311	B-3A	R513	A-1F	R617	B-1C	R735	A-4D
Q212	A-4A	0619	B-4E			R137	B-5B	R312	B-3A	R514	A-1F	R621	B-2D	R736	A-4D
Q301	B-2A	0620	B-4E			R143	B-5B	R313	A-2A	R515	A-1F	R625	A-2D	R737	A-4D
Q302	B-2A	0621	B-4E			R144	A-5B	R314	A-2A	R516	A-1F	R626	B-2D	R738	B-4D
Q303	B-3A	0622	B-4E			R201	B-5C	R315	A-2A	R517	A-1F	R627	B-2E	R739	B-4D
Q304	B-3A	0623	A-4E			R202	B-5C	R316	B-3A	R518	A-1F	R628	B-1D	R740	B-4D
Q305	B-3A	0624	B-4E			R203	B-5C	R317	B-3A	R519	A-1E	R629	A-2D	R741	A-4D
Q306	B-3A	0625	B-4D			R204	B-5D	R318	A-2A	R520	A-1E	R630	B-1D	R742	A-4D
Q307	B-3A	0626	B-4E			R205	B-5C	R319	B-2A	R521	A-1F	R632	A-1D	R744	B-4E
Q308	A-2A	0630	B-4E			R206	B-5C	R320	B-2A	R523	B-3C	R633	B-1D	R745	B-4E
Q309	A-2A	0641	B-3D			R207	B-5C	R321	B-2A	R527	A-2E	R634	A-1D	R746	B-4E
Q310	B-3A	0642	B-3C			R208	B-5D	R322	B-2A	R528	A-2E	R635	B-1D	R747	B-4E
Q401	B-3B	0643	B-2D			R209	B-5C	R323	B-3A	R529	A-2E	R636	A-1C	R748	B-4E
Q402	B-1B	0644	B-2D			R210	B-5C	R324	B-2A	R530	B-2D	R637	A-1C	R749	B-4E
Q403	B-3C	0645	B-2D			R211	A-5D	R326	B-3A	R531	A-3E	R638	B-1C	R751	B-3E
Q404	B-3C	0646	B-2D			R212	A-5D	R327	A-2A	R532	A-3E	R639	B-1D	R752	B-4E
Q405	B-2C	0649	B-2D			R213	A-5D	R328	B-2A	R534	A-3E	R640	B-1D	R753	B-4E
Q407	B-1A	0650	B-2D			R214	A-5D	R329	A-2A	R535	A-3E	R641	B-1D	R754	B-4E
Q408	B-2C	0801	B-5D			R215	A-5C	R330	A-2A	R536	A-3E	R642	B-2C	R755	B-4D
Q451	B-1A	0802	B-5D			R216	A-5C	R331	B-3B	R537	A-3E	R644	A-1C	R756	B-4D
Q501	B-1E	0803	B-5D			R217	B-5C	R332	B-2B	R538	B-2D	R645	B-2C	R757	B-4E
Q503	B-3D	0804	B-6D			R218	B-5C	R333	B-2B	R539	A-2D	R646	B-2C	R759	A-4E
Q504	B-3D	0805	A-6E			R219	B-5C	R334	B-3B	R540	B-3E	R648	B-2D	R760	B-4E
Q505	A-3E	0806	A-6E			R220	A-4A	R335	B-3B	R541	B-3E	R649	A-2D	R761	B-3E
Q506	A-3E	0807	A-6E			R221	B-4A	R336	B-3B	R542	B-3E	R650	B-1D	R762	B-4E
Q507	A-3E	0808	A-6E			R222	B-3A	R337	B-3B	R544	B-3E	R651	B-1D	R763	B-4E
Q508	A-3E	0809	A-5E			R223	B-3B	R338	B-3B	R545	B-3E	R652	B-2C	R764	B-4E
Q509	A-3E	0810	A-5F			R224	B-3A	R339	B-3A	R547	A-2E	R653	B-2C	R765	B-4E
Q510	B-3E	0811	A-5E			R225	B-3A	R340	B-3A	R548	A-3E	R654	B-2C	R766	B-4E
Q511	B-3E	0901	B-6B			R226	B-4A	R341	B-3A	R549	A-3E	R655	B-2D	R767	B-4E
Q512	B-3E	0902	B-6C			R227	B-3A	R342	B-3A	R550	A-3E	R656	B-2D	R768	B-4E
Q513	A-2E	0903	B-6C			R228	B-3A	R343	B-3A	R551	A-3E	R657	B-2D	R769	A-4E
Q514	A-2E	0904	A-6B			R229	B-3A	R344	B-3A	R554	B-2D	R658	B-2D	R770	B-4E
Q515	A-2D	0905	B-6B			R230	B-3A	R345	A-2A	R555	B-3E	R659	B-1D	R771	B-4E
Q516	A-2E	0906	B-6C			R231	B-4A	R401	B-3C	R556	B-3E	R661	A-1E	R784	A-4F
Q520	B-2E					R232	B-4A	R402	B-2C	R557	B-3E	R662	A-1E	R788	B-2D
Q521	A-3E					R233	B-3A	R403	B-2C	R559	B-3E	R672	A-3D	R789	B-4D
Q522	A-3E					R234	B-4A	R404	B-1C	R561	B-3E	R673	B-3D	R790	B-4D
Q523	B-4F					R235	B-4A	R405	B-2C	R562	A-3E	R674	B-3D	R791	B-3D
Q524	B-1D					R236	B-3A	R406	B-3C	R563	B-3E	R675	B-3D	R792	B-3D
Q525	A-4D					R237	B-3A	R409	B-3B	R564	A-3E	R676	B-3D	R793	B-3D
Q527	A-4D					R238	B-3A	R410	B-1B	R565	A-2E	R677	B-3D	R794	B-3

R799	B-3E	C25	A-6B	C301	A-2A	C504	B-1E	C621	B-1D	C801	A-5E	L304	B-3A	REF. NO. LOCATION	SW1	B-1B
R800	B-4E	C26	A-4A	C302	B-2A	C505	B-1E	C622	B-1D	C803	B-4E	L305	B-2B	REF. NO. LOCATION		
R801	A-5E	C27	B-4A	C303	B-2A	C506	B-2E	C624	A-2D	C804	B-4E	L401	A-2C	TEST P/N		
R802	B-5E	C28	B-4A	C304	B-2A	C507	A-1E	C625	A-1D	C805	A-5E	L402	A-2C	TP1		
R803	B-5E	C29	B-4A	C305	B-2A	C508	A-1E	C626	A-1D	C806	A-5D	L452	B-1B	TP201		
R804	B-4E	C30	B-4A	C306	B-3A	C509	A-1E	C627	B-1D	C807	B-5E	L453	B-1B	TP202		
R805	A-5D	C32	B-4B	C307	A-3A	C510	A-1F	C628	A-1D	C808	B-5E	L454	B-2C	TP203		
R806	A-5D	C33	B-4B	C308	A-3A	C511	A-1F	C629	B-1D	C809	A-5E	L501	B-1E	TP237		
R807	B-5D	C34	B-4B	C309	A-2A	C512	A-1F	C630	B-1D	C810	A-5E	L502	B-2E	TP288		
R808	B-5D	C36	B-4A	C310	B-2A	C513	A-1F	C632	A-1C	C811	B-5D	L504	B-2E	TP301		
R809	B-5D	C37	B-4A	C311	B-2A	C514	A-1F	C633	B-1D	C812	B-5D	L505	B-3D	TP302		
R810	B-6D	C38	B-3C	C312	B-2A	C515	A-1E	C634	A-1C	C813	A-5D	L506	B-3E	TP304		
R811	B-6D	C39	A-4B	C313	B-2A	C516	A-1E	C635	B-1C	C814	A-5E	L508	B-3D	TP305		
R812	B-5D	C40	B-4A	C314	B-3A	C517	A-4F	C636	A-1D	C815	B-5D	L509	A-2E	TP401		
R813	A-5D	C41	B-4A	C315	B-3A	C518	A-1E	C637	A-3D	C816	B-5E	L510	B-2D	TP402		
R814	A-5D	C42	B-3B	C316	B-3A	C528	A-2E	C638	A-3D	C817	A-5E	L511	A-2D	TP451		
R815	B-5D	C43	B-3B	C317	B-3A	C529	A-2E	C641	B-2C	C818	A-5E	L521	A-1C	TP501		
R816	B-6D	C44	B-3B	C318	B-2A	C530	B-2E	C642	B-2D	C819	A-5E	L522	A-1D	TP503		
R817	B-6D	C47	A-4A	C319	A-3B	C531	A-2E	C643	B-1D	C820	A-5D	L523	B-2D	TP504		
R818	B-5D	C48	A-4A	C320	A-2B	C532	B-2D	C645	B-2C	C821	B-5E	L529	B-1D	TP505		
R819	A-6D	C49	A-4A	C321	A-2B	C533	B-3E	C646	B-2C	C822	B-5D	L530	B-1D	TP506		
R820	A-5D	C50	A-4B	C322	A-2A	C534	B-3D	C647	B-2D	C823	A-5E	L531	A-2D	TP507		
R828	A-5E	C54	A-3B	C323	B-2A	C535	B-3E	C648	B-2C	C824	A-5D	L533	A-1D	TP508		
R829	B-6E	C55	A-3B	C324	A-2A	C537	B-3E	C649	B-2C	C825	B-5E	L534	B-1D	TP509		
R830	B-5D	C56	B-5B	C325	A-2A	C538	B-3E	C650	A-1D	C826	A-6E	L551	A-4E	TP510		
R831	B-5D	C57	B-5A	C326	A-2A	C539	B-3E	C651	A-1E	C828	B-5E	L552	A-4E	TP512		
R832	B-6D	C58	B-4C	C327	A-2A	C540	B-3E	C652	A-1E	C829	A-5D	L553	A-4D	TP513		
R833	A-6D	C59	A-4C	C328	A-2A	C541	B-3E	C653	A-1E	C830	A-5E	L554	A-4E	TP514		
R834	A-6D	C60	B-4C	C329	A-3B	C542	B-3E	C654	B-1E	C831	A-5E	L555	A-4D	TP515		
R835	B-6D	C61	B-4C	C330	B-3A	C543	A-3E	C655	A-1D	C832	A-5D	L556	B-4D	TP516		
R836	A-5E	C62	B-5B	C331	B-3A	C545	A-3E	C656	A-1E	C833	B-5D	L557	A-4E	TP517		
R837	B-6D	C63	A-4A	C332	B-2B	C547	A-3E	C657	A-1E	C834	B-5E	L558	A-4E	TP518		
R838	A-5E	C64	A-5B	C333	B-3B	C548	A-3E	C667	A-4E	C835	B-6E	L559	A-4D	TP519		
R839	A-5E	C66	A-4A	C334	B-3B	C549	B-3E	C668	A-4E	C836	A-6D	L560	A-4E	TP802		
R840	B-6D	C67	B-5A	C335	B-3B	C550	B-3E	C669	A-4D	C837	A-6E	L561	A-4D	TP803		
R841	A-6E	C201	A-5C	C336	B-3B	C551	B-3D	C670	A-4E	C838	A-5D	L562	B-4D	A-6E		
R842	A-6E	C202	B-5C	C337	A-2B	C552	B-3F	C671	B-4D	C839	B-6D	L563	B-4E	A-4E		
R843	B-6E	C203	B-5C	C338	B-2A	C553	B-3F	C672	B-4D	C841	B-6E	L564	B-4D	A-6E		
R844	A-5E	C204	B-5C	C339	A-3A	C555	B-2F	C673	B-4D	C842	A-6E	L565	B-4E	A-4E		
R845	A-5E	C205	B-5C	C340	B-2A	C556	B-2F	C674	B-4D	C843	A-6E	L566	A-4E	A-4E		
R846	A-5E	C207	B-5C	C341	B-2B	C557	B-2E	C676	B-4D	C844	B-6D	L567	B-4E	A-4E		
R847	A-5E	C208	B-5C	C401	B-2C	C558	A-2E	C678	A-4E	C845	B-6D	L568	A-4E	A-4E		
R848	A-5E	C209	A-5C	C402	B-2C	C559	A-3E	C679	A-4E	C846	A-6E	L569	B-4E	A-4E		
R849	B-6E	C210	B-5C	C403	B-2C	C560	B-2F	C680	A-4D	C847	B-5D	L570	B-4E	A-4E		
R850	B-6E	C215	B-3A	C404	B-2C	C561	B-2F	C681	A-4E	C848	B-5D	L574	B-4D	A-4E		
R851	A-6E	C216	A-3A	C405	A-2B	C562	B-2E	C682	A-4D	C849	A-6E	L575	B-4D	A-4E		
R852	B-6E	C217	B-3A	C406	A-2B	C563	A-2E	C683	A-4D	C850	B-6D	L581	A-3D	A-4E		
R853	A-5E	C218	A-3A	C407	B-3B	C565	A-2E	C684	A-4D	C851	A-5E	L582	A-3C	A-4E		
R854	A-6E	C219	A-3A	C408	B-2B	C566	B-2E	C685	A-4D	C852	A-6E	L583	A-3C	A-4E		
R855	B-6E	C220	B-3A	C409	A-3B	C568	B-2D	C686	A-4D	C853	B-6E	L584	B-2C	A-4E		
R956	A-5E	C221	A-3A	C410	A-2B	C571	B-3E	C687	A-4D	C854	A-6E	L585	A-4D	A-4E		
R957	A-5E	C222	B-3A	C411	A-3B	C573	B-1E	C689	B-4E	C855	A-6E	L601	A-1E	A-4E		
R858	A-5F	C223	B-4A	C412	A-2B	C575	B-3D	C690	B-4E	C856	A-6E	L802	A-5E	A-4E		
R859	B-5D	C224	B-4A	C413	B-3B	C576	B-3D	C691	B-4E	C857	A-5E	L803	A-5D	A-4E		
R860	B-6D	C225	B-3A	C414	B-2B	C577	B-3E	C692	B-4E	C858	A-6E	L804	B-6D	A-4E		
R861	A-5F	C226	B-4A	C415	A-3B	C578	B-2D	C693	B-4E	C859	A-5E	L805	A-5D	A-4E		
R862	B-5F	C230	B-6B	C416	A-2B	C581	A-1D	C694	B-4D	C860	B-6E	L806	A-5E	A-4E		
R863	B-5F	C231	B-6B	C417	A-2B	C582	A-1C	C695	B-4D	C861	A-6E	L901	B-6B	A-4E		
R864	B-5E	C232	B-6A	C418	A-2B	C584	A-1C	C696	B-4D	C862	A-6E	L902	A-6B	A-4E		
R865	B-5D	C233	A-6A	C419	B-3B	C585	B-1D	C697	A-4F	C863	A-6E	L903	A-6B	A-4E		
R866	B-5D	C234	A-6A	C420	B-2B	C586	A-1C	C698	A-4E	C865	A-6E	REF. NO. LOCATION				
R901	B-6B	C235	A-6A	C421	B-1A	C587	B-1C	C699	B-4E	C866	B-6E	EQUALIZER				
R902	B-6B	C236	A-6A	C422	B-1A	C588	A-1D	C700	B-4E	C867	A-5E	E0501 A-2D				
R903	B-6B	C237	B-6A	C423	A-1A	C589	B-1C	C701	B-4E	C868	A-5F	REF. NO. LOCATION				
R904	B-6B	C238	B-6A	C424	A-1A	C590	B-2E	C702	B-4F	C869	B-5E	LPF				
R905	B-6C	C239	B-6A	C425	A-1A	C591	B-1C	C703	B-4E	C870	B-5F	LPF501 A-2E				
R906	B-6C	C240	A-6B	C426	A-1A	C592	A-2D	C704	B-4E	C871	A-5E	LPF502 A-2E				
R907	A-6B	C241	B-4A	C451	B-2C	C593	B-2D	C705	B-4D	C872	B-5D	LPF503 A-2D				
R908	A-6B	C259	A-4A	C452	B-2C	C594	B-2C	C710	B-4D	C873	A-6E	REF. NO. LOCATION				
		C260	A-4A	C453	A-2C	C595	B-3D	C711	B-4D	C874	B-5F	BPF				
		C270	B-5C	C454	B-2C	C596	B-3D	C715	B-4D	C875	B-4F	BPF501 A-1C				
		C281	B-6C	C455	B-1C	C600	B-2C	C716	B-4D	C876	B-5F	BPF502 A-1D				
		C282	B-6C	C456	B-2C	C603	B-2D	C721	B-2D	C877	A-5F	BPF503 A-2D				
		C283	B-6C	C457	B-2C	C604	A-1C	C722	A-3D	C878	A-5E	REF. NO. LOCATION				
		C284	B-6C	C458	B-2B	C605	B-2D	C723	A-3D	C879	A-5F	DELAY LINE				
		C285	B-6C	C459	B-2B	C606	B-1D	C724	A-3D	C901	B-6B	DL501 B-1C				
		C286	B-6C	C460	B-2B	C607	B-2D	C725	A-3D	C902	B-6B	REF. NO. LOCATION				
		C288	A-6D	C461	A-1B	C608	B-2D	C726	B-3D	C903	B-6B	CRYSTAL RESONATOR				
		C289	A-6D	C462	A-1B	C609	B-2D	C727	B-3D	C904	B-6B	X1 A-5B				
		C290	A-6D	C463	B-2B	C610	B-2D	C728	B-3D	C905	B-6B	X2 A-5B				
		C291	A-5D	C464	A-2B	C611	A-2D	C729	B-3D	C906	B-6B	X501 A-2D				
		C292	A-5D	C465	A-2B	C612	B-1D	C730	B-3D	REF. NO. LOCATION						
		C293	A-5D	C466	B-2B	C614	A-2D	C731	A-3C	COIL						
		C294	A-5C	C467	A-1A	C615	B-2D	C732	B-3C	L1 B-4A						
		C295	A-5C	C468	A-1A	C616	B-2D	C733	B-3C	L201 B-5D						
		C296	A-5C	C469	B-3B	C617	B-2D	C734	A-3C	L301 A-2A						
		C297	A-5C	C501	B-1F	C618	B-1D	C735	A-4D	L302 A-2B						
		C298	B-5C	C502	B-1E	C619	B-1D	C736	A-4D	L303 B-3A						
		C299	B-6C	C503	B-1E	C620	B-1D	C740	A-1C							

5



3

2

1

A

B

C

4-37

4-38

E

NOTE: This schematic diagram is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.



G

H

4.16 REGULATOR SCHEMATIC DIAGRAM



From/To
A/V (Page 4-41)

From/To 01 MAIN, CN3

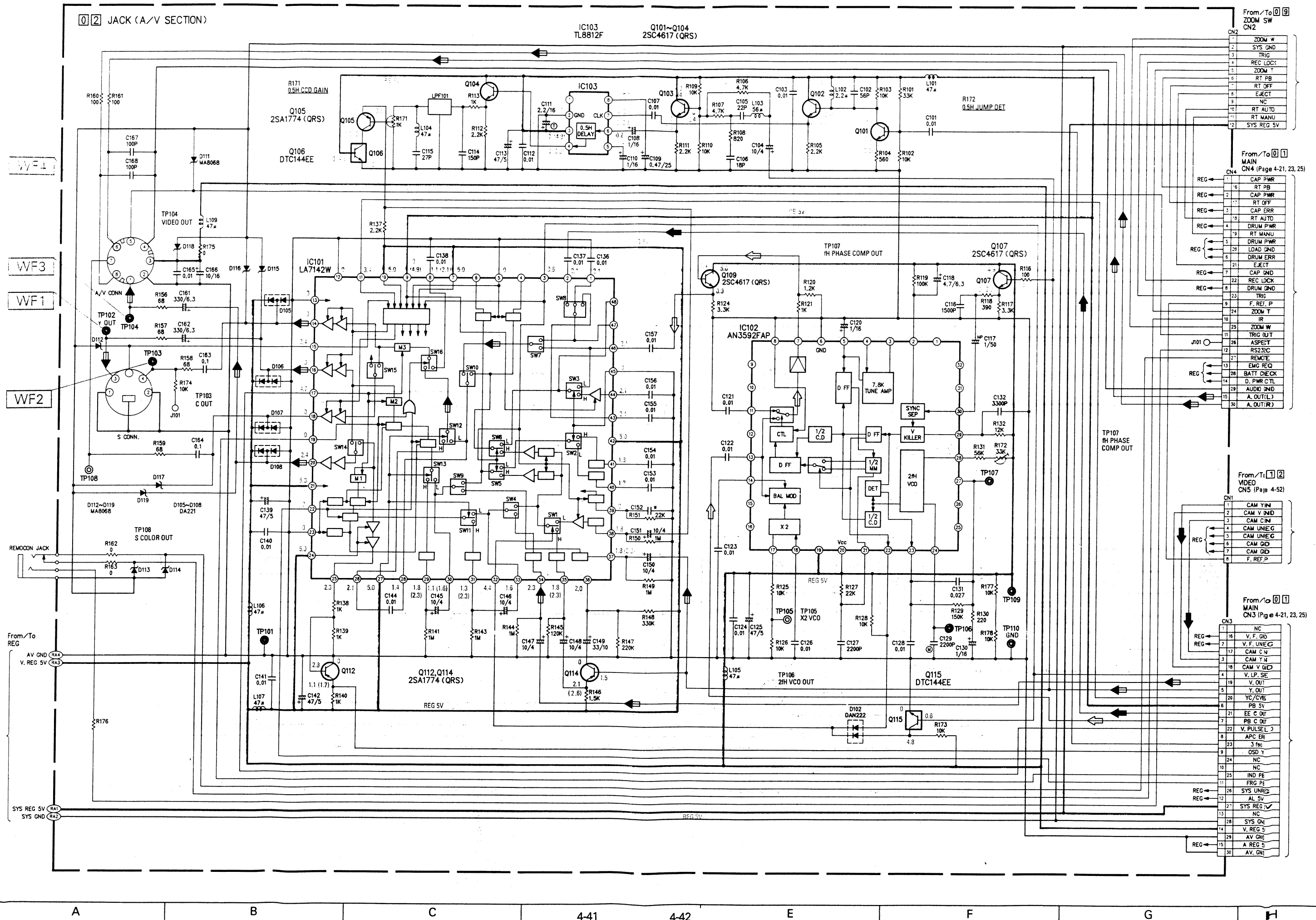
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From/To **0** **1**
MAIN CN3
(Page 4-17, 26)

From/To **0 1**
MAIN CN4
(Page 4-23, 25)

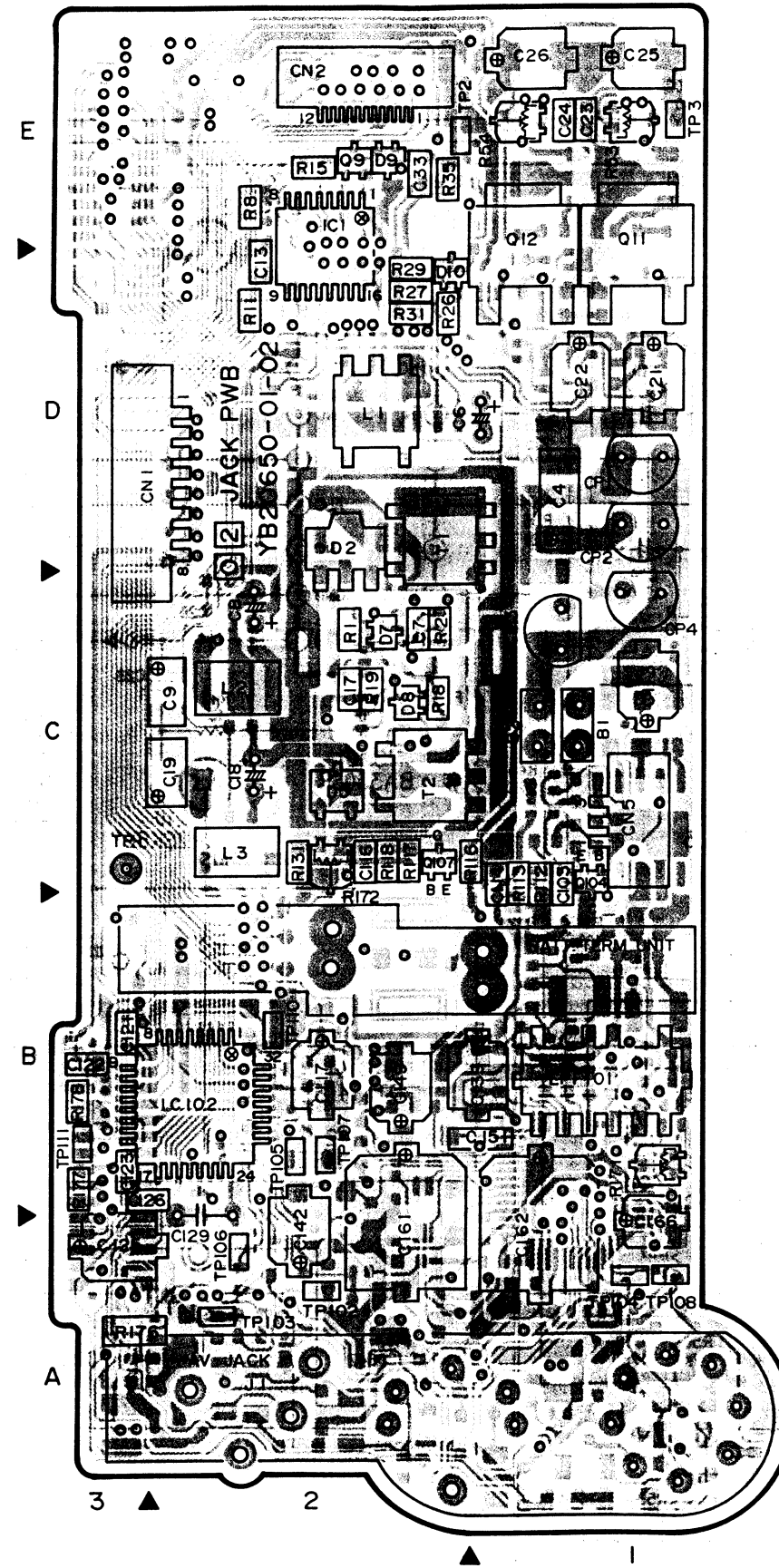
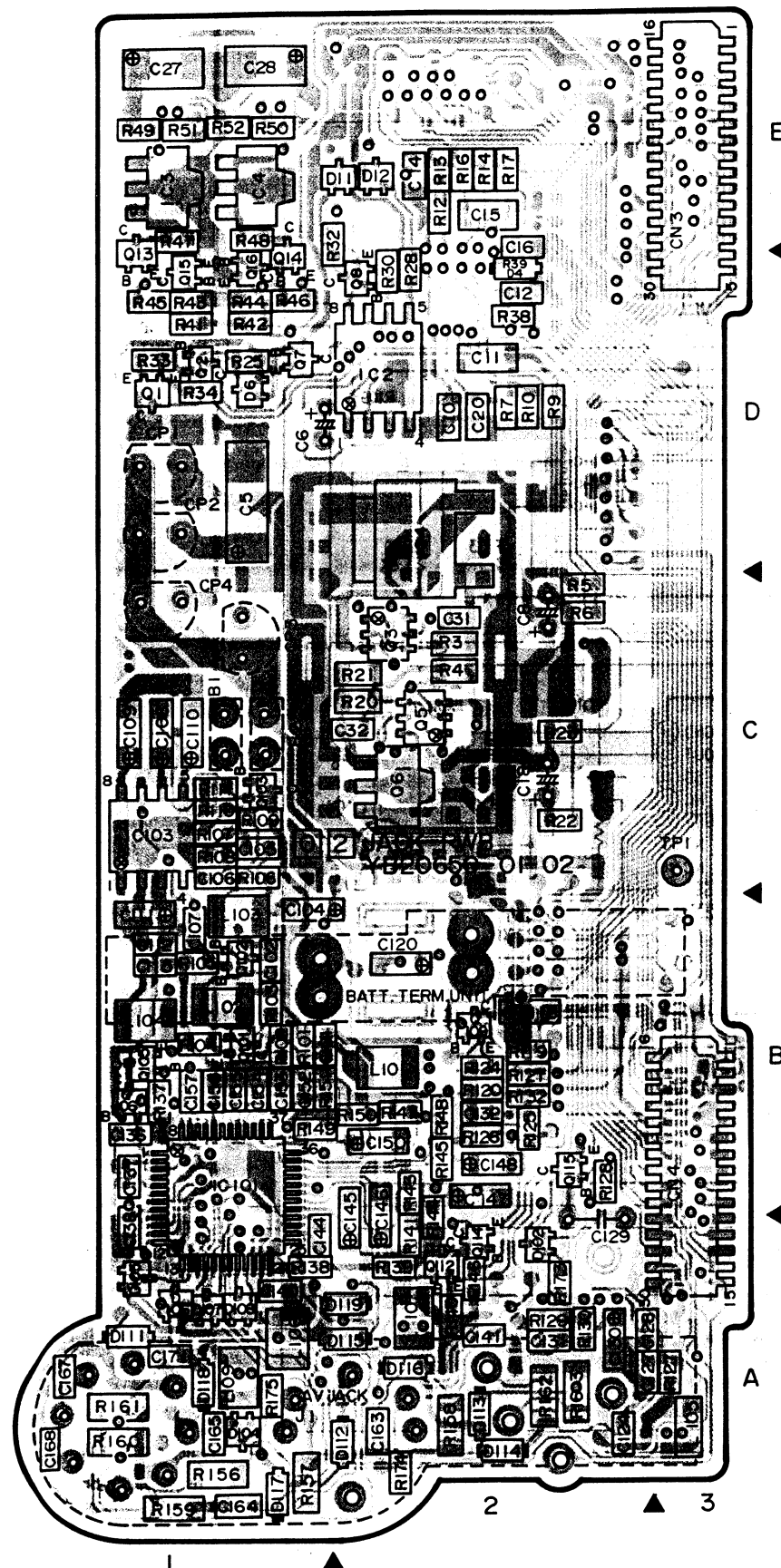
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1



— JACK —

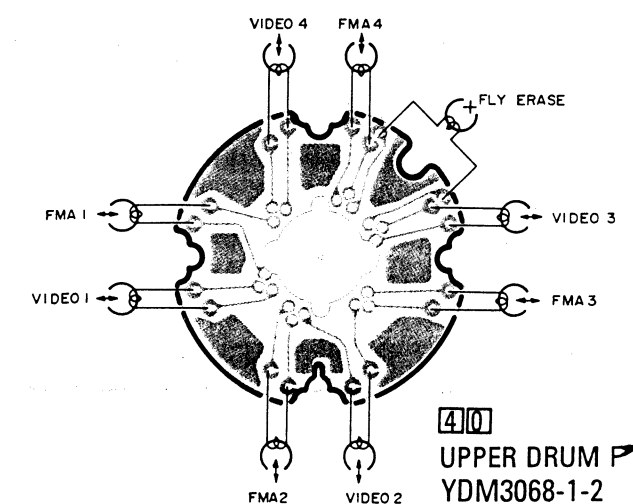
COMPONENT SIDE
(A)



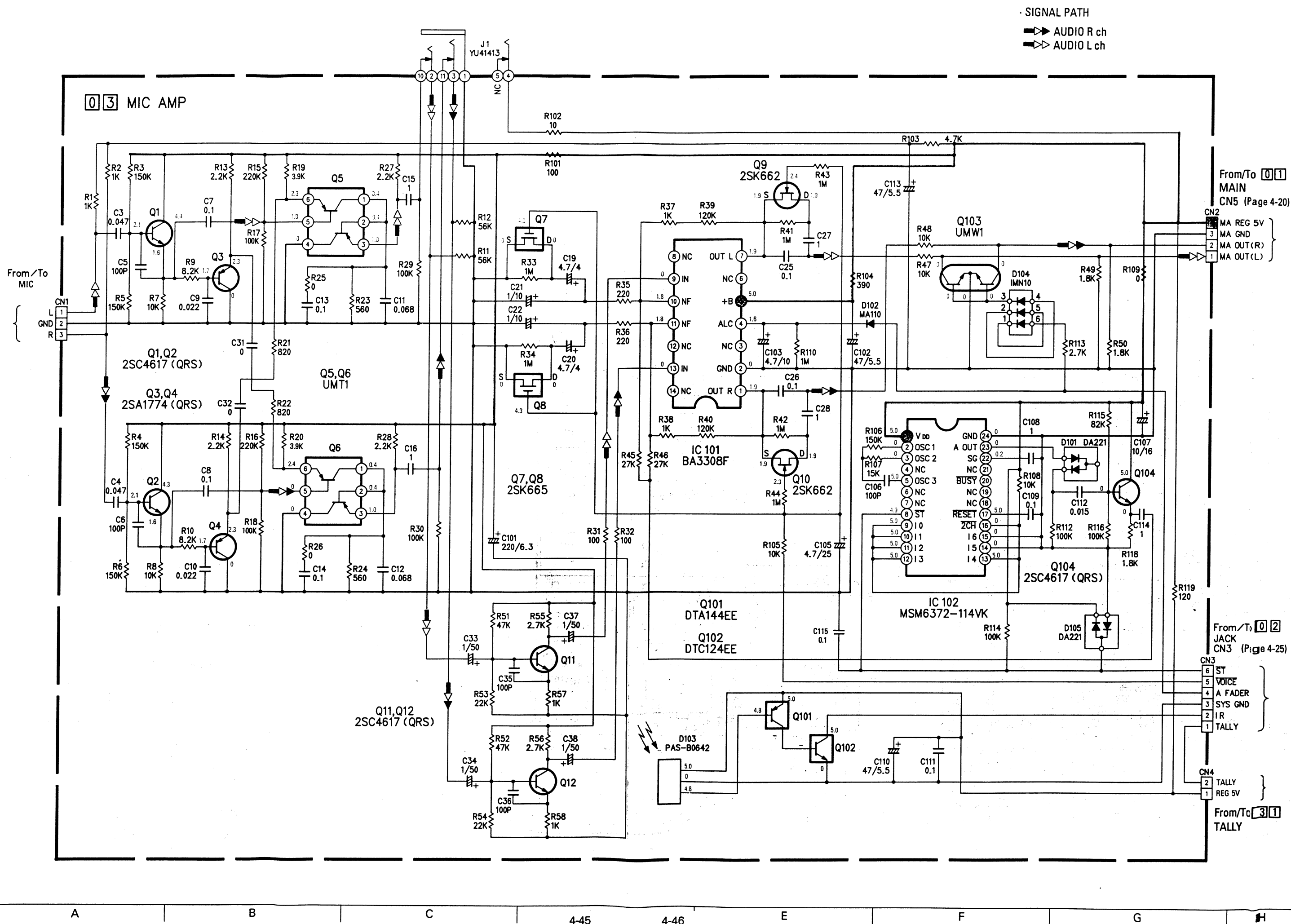
< 0 2 > J A C K B O A R D

REF. NO. LOCATION IC	D105 B-1A D106 B-1A D107 B-1A D108 B-1A D111 B-1A D112 B-2A D113 B-2A D114 B-2A D115 B-2A D116 B-2A D117 B-1A D118 B-1A D119 B-2A	R42 B-1D R43 B-1D R44 B-1D R45 B-1D R46 B-1D R47 B-1E R48 B-1E R49 B-1E R50 B-1E R51 B-1E R52 B-1E R101 B-1B R102 B-1B R103 B-1B R104 B-1B R105 B-1B R106 B-1C R107 B-1C R108 B-1C R109 B-1C R110 B-1C R111 B-1C R112 A-1C R113 A-1C R116 A-2C R117 A-2C R118 A-2C R119 B-2B R120 B-2B R121 B-2B R124 B-2B R125 B-2B R126 B-2B R127 B-3A R128 B-2B R129 B-2A R130 B-2A R131 A-2C R132 B-2B R137 B-1B R138 B-1A R139 B-2A R140 B-2A R141 B-2A R143 B-2B R144 B-2A R145 B-2B R146 B-2A R147 B-2B R148 B-2B R149 B-1B R150 B-2B R151 B-1B	R156 B-1A R157 B-1A R158 B-2A R159 B-1A R160 B-1A R161 B-1A R162 B-2A R163 B-2A R173 B-2A R174 B-2A R175 B-1A R176 A-3B R177 A-3B R178 A-3B	C115 B-1B C116 A-2C C117 A-2B C118 B-2B C120 B-2B C121 A-3B C122 A-3B C123 A-3B C124 B-2A C125 A-3A C126 A-3B C127 B-2A C128 B-2A C130 B-2A C131 B-2A C132 B-2B C136 B-1B C137 B-1B C138 B-1B C139 A-1B C140 B-1A C141 B-2A C142 A-2A C144 B-1A C145 B-2B C146 B-2B C147 B-2B C148 B-2B C149 A-2B C150 B-2B C151 A-1B C152 B-1B C153 B-1B C154 B-1B C155 B-1B C156 B-1B C157 B-1B C161 A-2A C162 A-1A C163 B-2A C164 B-1A C165 B-1A C166 A-1A C167 B-1A C168 B-1A C171 B-1A	L106 B-1A L107 B-2A L109 B-1A
REF. NO. LOCATION TRANSISTOR	REF. NO. LOCATION RESISTOR	REF. NO. LOCATION CAPACITOR	REF. NO. LOCATION COIL		
Q1 B-1D Q2 B-1D Q3 B-2C Q4 B-2D Q5 B-2C Q6 B-2C Q7 B-1D Q8 B-2D Q9 A-2E Q11 A-1E Q12 A-1E Q13 B-1E Q14 B-1E Q15 B-1D Q16 B-1D Q101 B-1B Q102 B-1B Q103 B-1C Q104 A-1C Q105 B-1B Q106 B-1B Q107 A-2C Q109 B-2B Q112 B-2A Q114 B-2A Q115 B-2B	R1 A-2C R2 A-2C R3 B-2C R4 B-2C R5 B-2C R6 B-2C R7 B-2D R8 A-2E R9 B-2D R10 B-2D R11 A-2D R12 B-2E R13 B-2E R14 B-2E R15 A-2E R16 B-2E R17 B-2E R18 A-2C R19 A-2C R20 B-2C R21 B-2C R22 B-2C R23 B-2C R25 B-1D R26 A-2D R27 A-2D R28 B-2D R29 A-2D R30 B-2D R31 A-2D R32 B-1E R33 B-1D R34 B-1D R35 A-2E R38 B-2D R39 B-2D R41 B-1D	C4 A-1D C5 B-1D C7 A-2C C9 A-2C C10 B-2D C11 B-2D C12 B-2D C13 A-2D C14 B-2E C15 B-2E C16 B-2E C17 A-2C C19 A-2C C20 B-2D C21 A-1D C22 A-1E C23 A-1E C24 A-1E C25 A-1E C26 A-1E C27 B-1E C28 B-1E C31 B-2C C32 B-2C C33 A-2E C101 B-1B C102 B-1B C103 A-1C C104 B-1B C105 B-1C C106 B-1C C107 B-1B C108 B-1C C109 B-1C C110 B-1C C111 B-1B	L1 A-2D L2 A-2C L3 A-2C L101 B-2B L102 B-1B		
REF. NO. LOCATION DIODE					
D2 A-2D D4 B-2D D5 A-2C D6 B-1D D7 A-2C D8 A-2C D9 A-2E D10 A-2D D11 B-2E D12 B-2E D102 B-2A D104 B-1A					
REF. NO. LOCATION CONNECTOR					
CN1 A-3D CN2 A-2E CN3 B-3E CN4 B-3B CN5 A-1C					
REF. NO. LOCATION CIRCUIT PROTECTOR					
CP1 A-1D CP2 A-1D CP3 A-1C CP4 A-1C					
REF. NO. LOCATION ADJUSTMENT					
R52 A-1E R53 A-1E R171 A-1B R172 A-2C					

— UPPER DRUM —



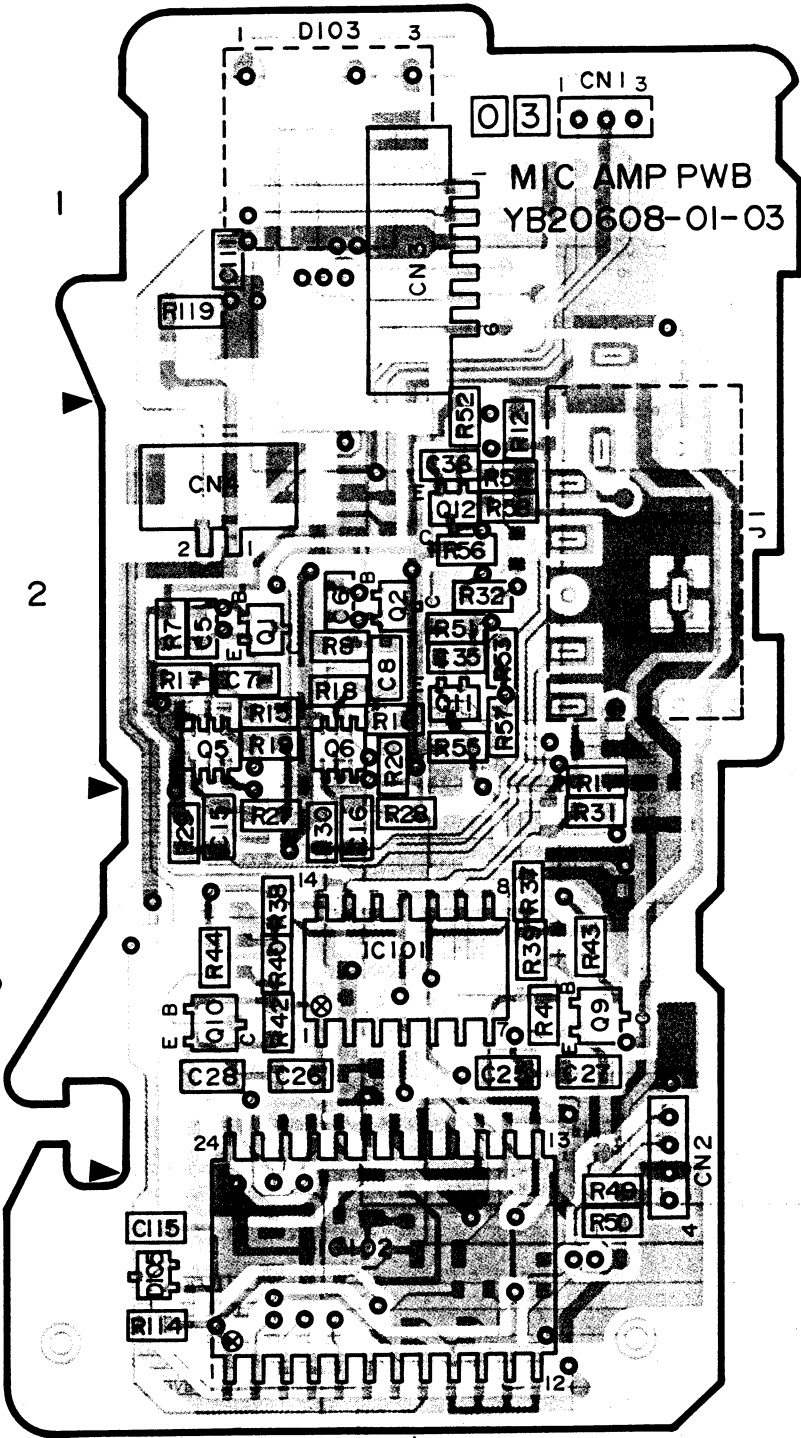
4.19 MIC AMP SCHEMATIC DIAGRAM



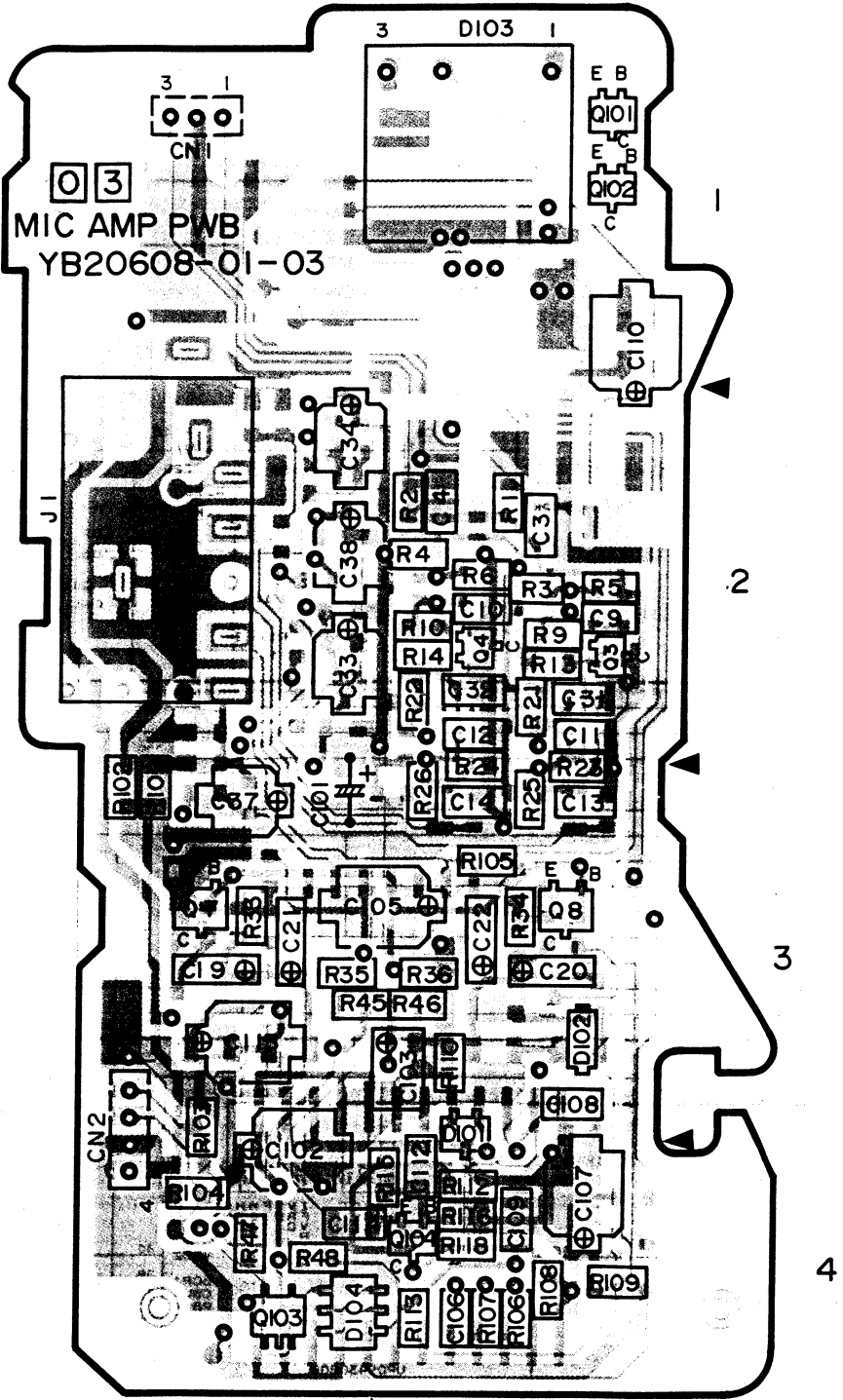
4.20 MIC AMP, TALLY, REC LOCK, TRIGGER AND EJECT CIRCUIT BOARDS

— MIC AMP —

FOIL SIDE
(B)



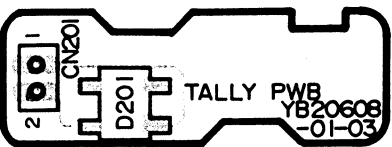
COMPONENT SIDE
(A)



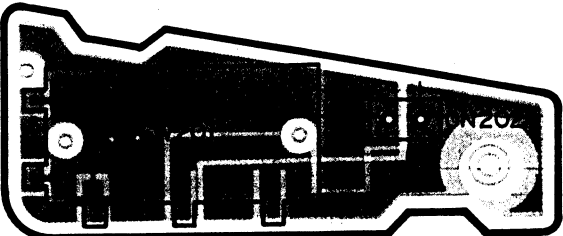
PARTS LOCATION GUIDE
<MIC AMP BOARD>

REF. No.	LOCATION	REF. No.	LOCATION
IC		RESISTOR	
IC101	B-3B	R51	B-2A
IC102	B-4B	R52	B-2A
		R53	B-2A
		R54	B-2A
		R55	B-2A
		R56	B-2A
		R57	B-2A
		R58	B-2A
		R101	A-3A
		R102	A-3A
		R103	A-3A
		R104	A-4A
		R105	A-3B
		R106	A-4B
		R107	A-4B
		R108	A-4B
		R109	A-4B
		R110	A-3B
		R112	A-4B
		R113	A-4B
		R114	B-4B
		R115	A-4B
		R116	A-4B
		R118	A-4B
		R119	B-1B
		CAPACITOR	
		C3	A-2B
		C4	A-2B
		C5	B-2B
		C6	B-2B
		C7	B-2B
		C8	B-2B
		C9	A-2B
		C10	A-2B
		C11	A-2B
		C12	A-2B
		C13	A-3B
		C14	A-3B
		C15	B-3B
		C16	B-3B
		C19	A-3A
		C20	A-3B
		C21	A-3A
		C22	A-3B
		C25	B-3A
		C26	B-3B
		C27	B-3A
		C28	B-3B
		C31	A-2B
		C32	A-2B
		C33	A-2A
		C34	A-2A
		C35	B-2A
		C36	B-2A
		C37	A-3A
		C38	A-2A
		C102	A-4A
		C103	A-3B
		C105	A-3B
		C106	A-4B
		C107	A-4B
		C108	A-3B
		C109	A-4B
		C110	A-1B
		C111	B-1B
		C112	A-4B
		C113	A-3A
		C114	A-4A
		C115	B-4B
		CONNECTOR	
		CN3	B-1A
		CN4	B-2B

— TALLY —

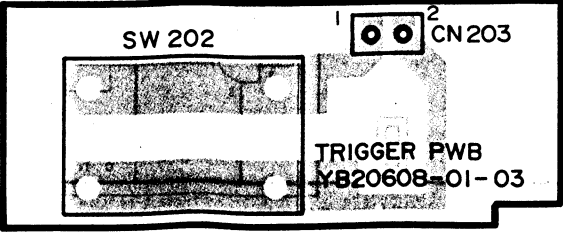


— REC LOCK —



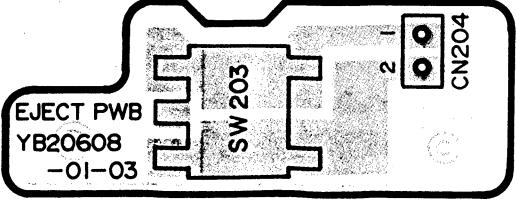
REC LOCK PWB YB20608-01-03

— TRIGGER —



TRIGGER PWB
YB20608-01-03

— EJECT —



EJECT PWB
YB20608-01-03

6

5



3

2 |

1

B

4-49

4-50

F

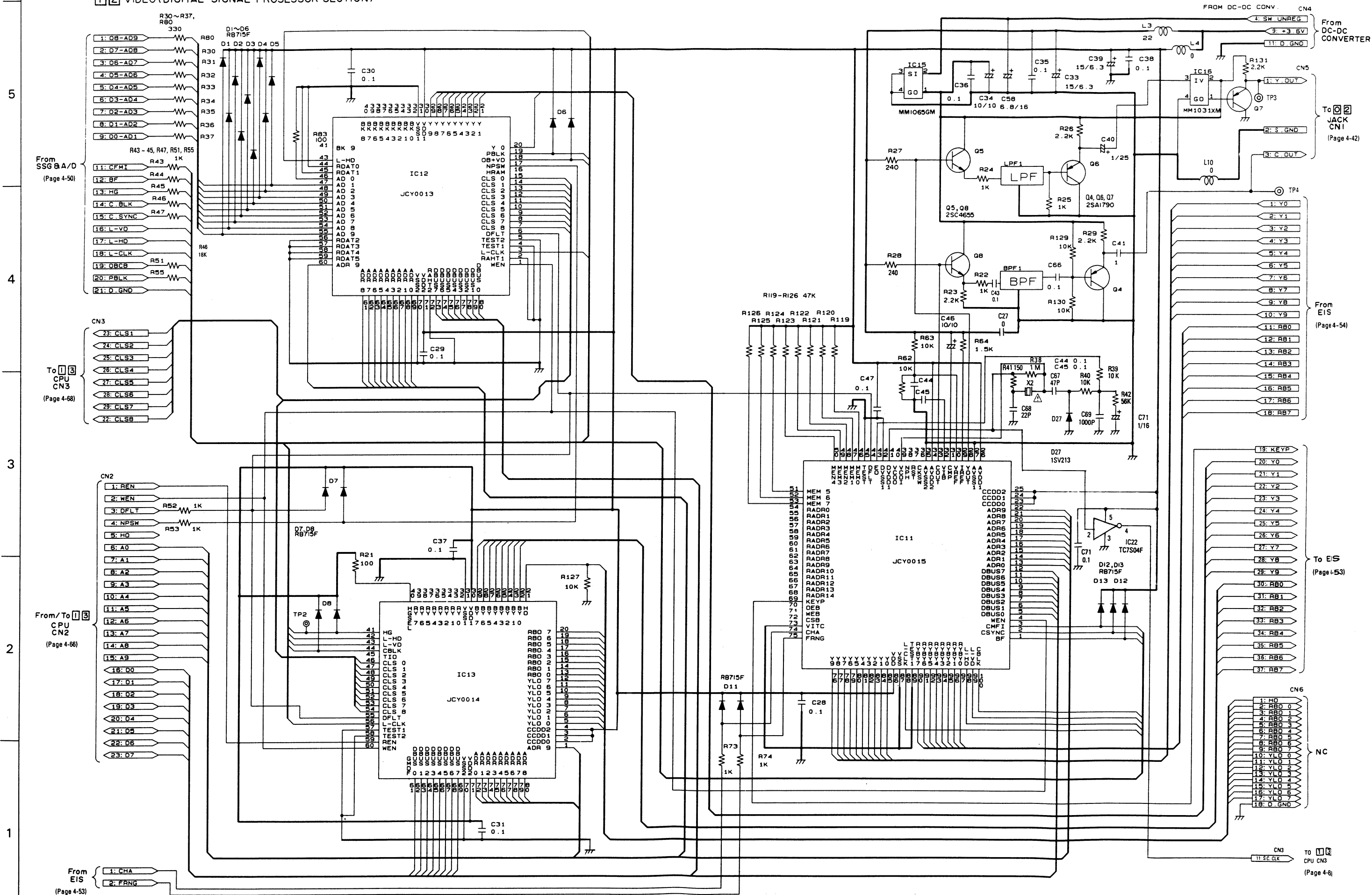
—

G

H

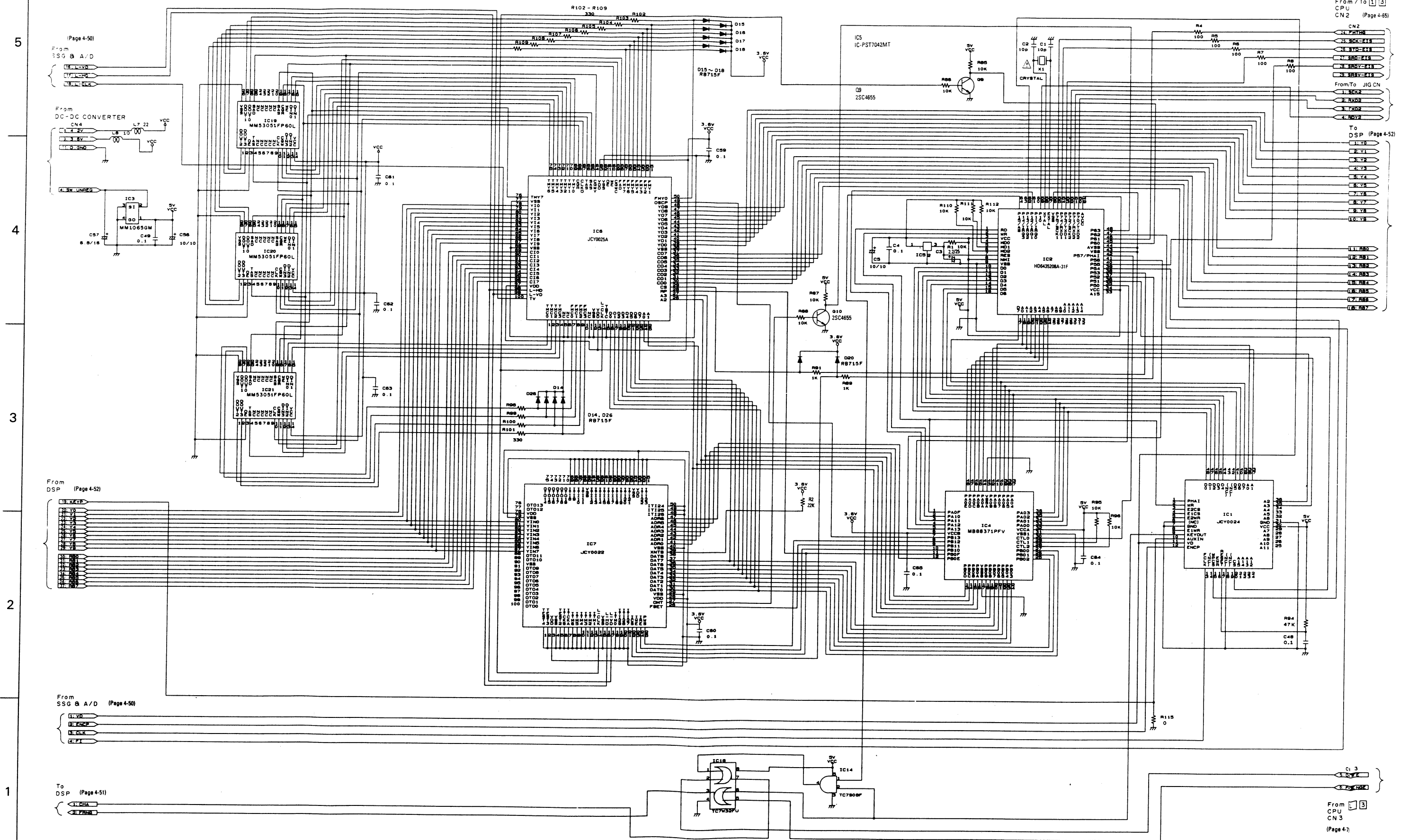
4.22 DIGITAL SIGNAL PROCESSOR SCHEMATIC DIAGRAM

1 2 VIDEO (DIGITAL SIGNAL PROSESSOR SECTION)



4.23 EIS SCHEMATIC DIAGRAM

1 2 VIDEO (EIS SECTION)



From / To 1 3
CPU
CN2 (Page 4-55)

To DSP (Page 4-52)
1. Y0
2. Y1
3. Y2
4. Y3
5. Y4
6. Y5
7. Y6
8. Y7
9. Y8
10. Y9

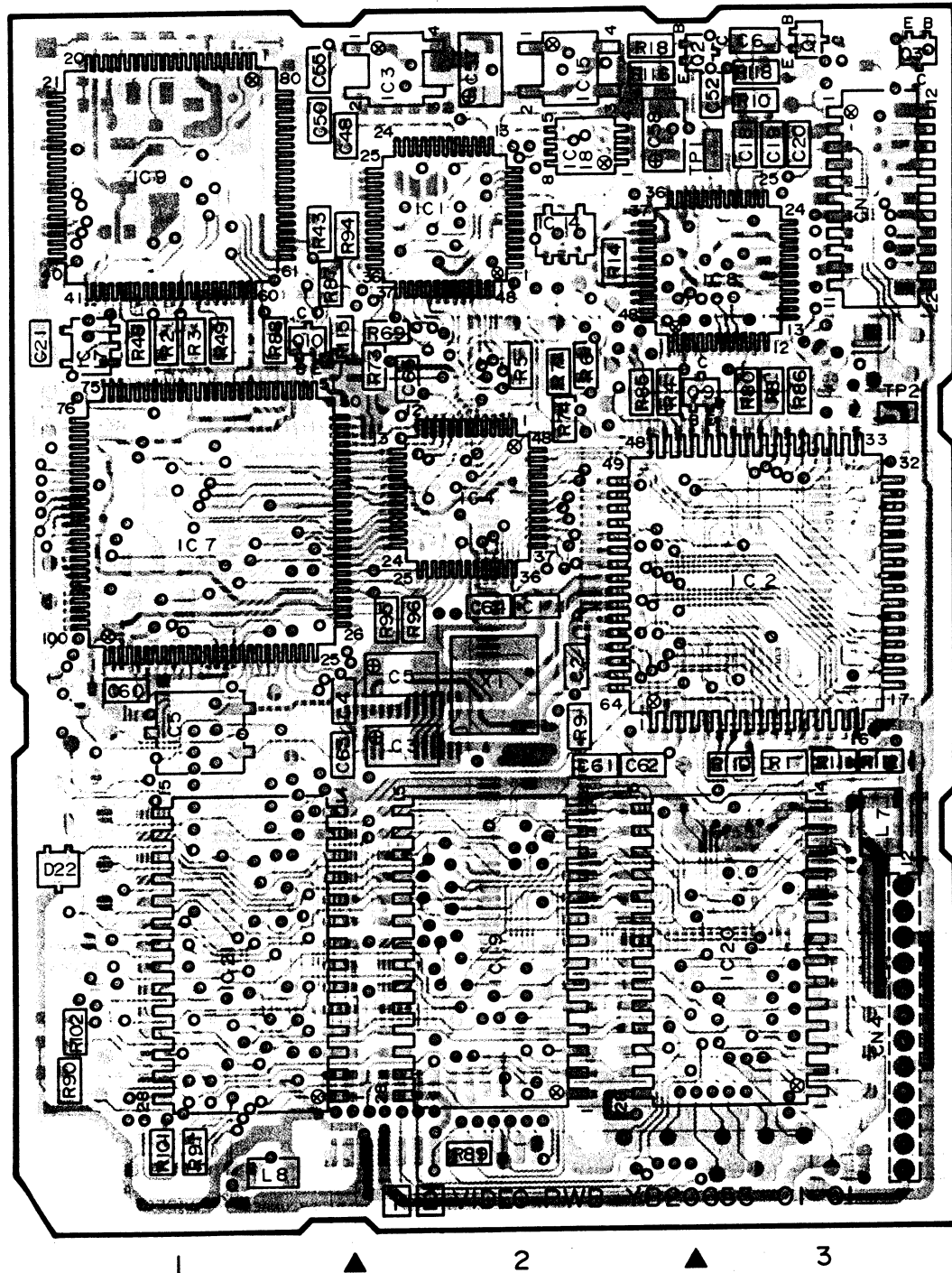
11. R0
12. R1
13. R2
14. R3
15. R4
16. R5
17. R6
18. R7
19. R8
20. R9

21. R10
22. R11
23. R12
24. R13
25. R14
26. R15
27. R16
28. R17
29. R18
30. R19

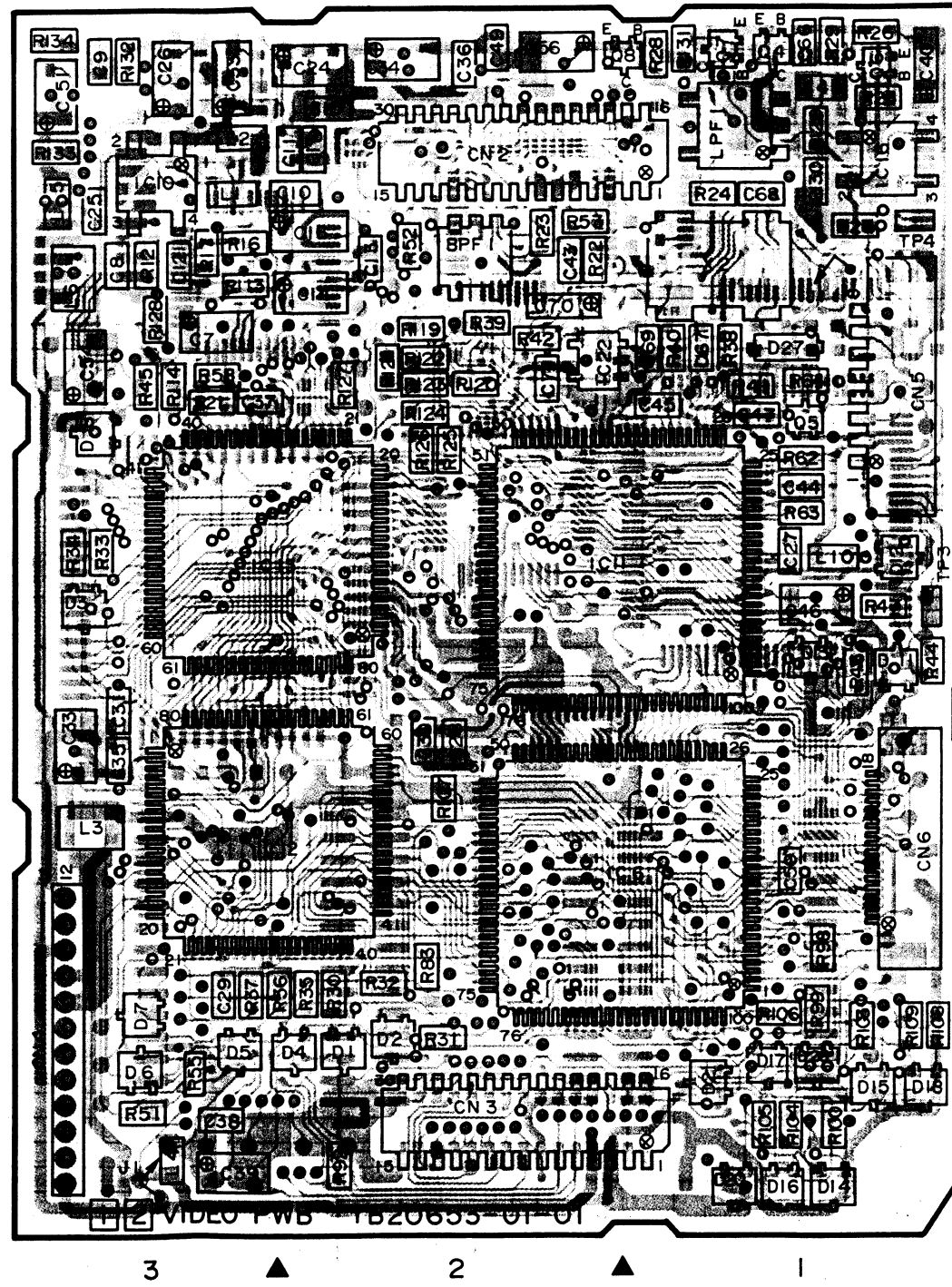
From 3
CPU
CN3
(Page 4-)

4.24 VIDEO CIRCUIT BOARD

**FOIL SIDE
(B)**



COMPONENT SIDE
(A)



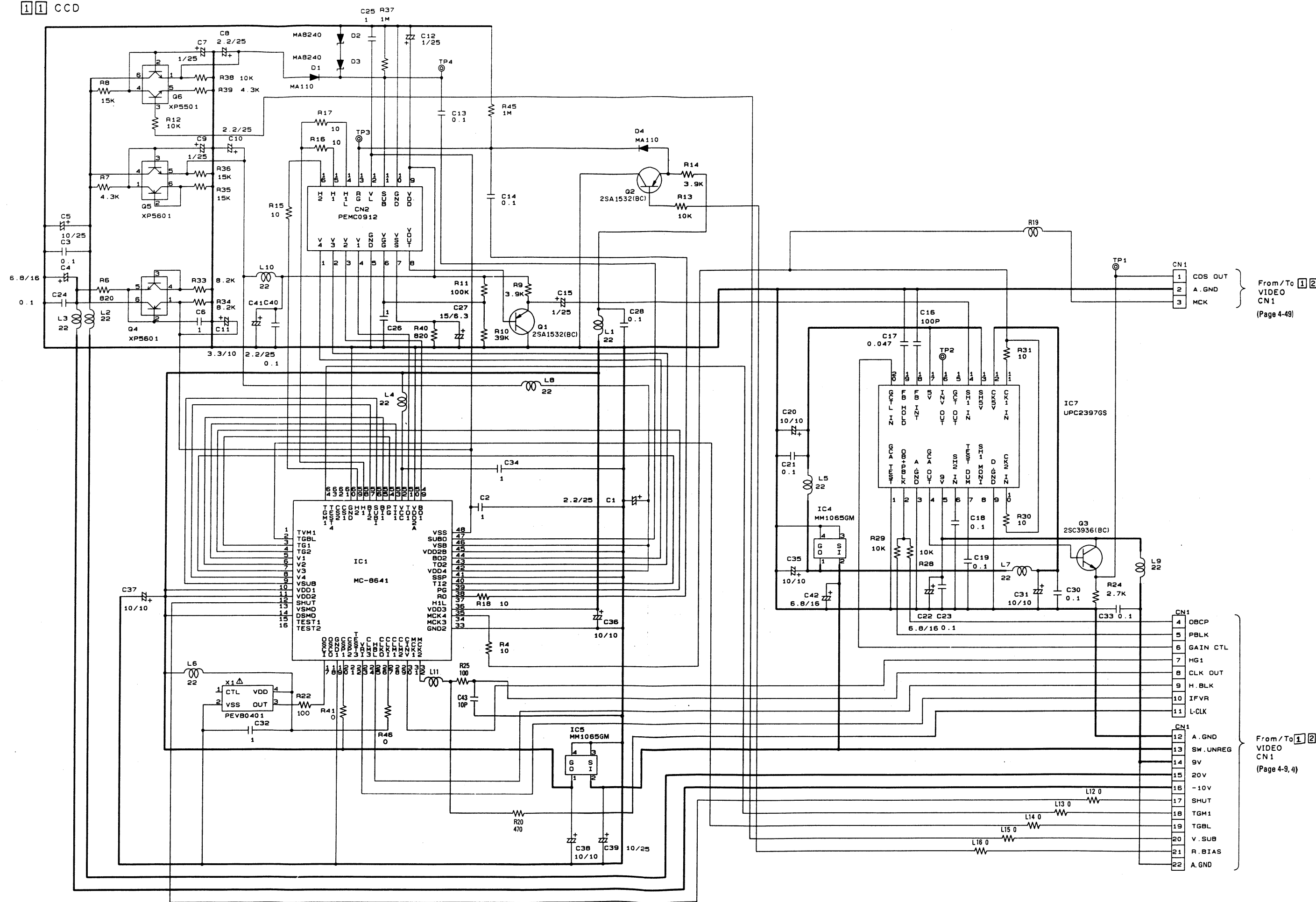
PARTS LOCATION GUIDE

<12>VIDEO BOARD

[illegible]

4.25 CCD SCHEMATIC DIAGRAM

1 1 CCD

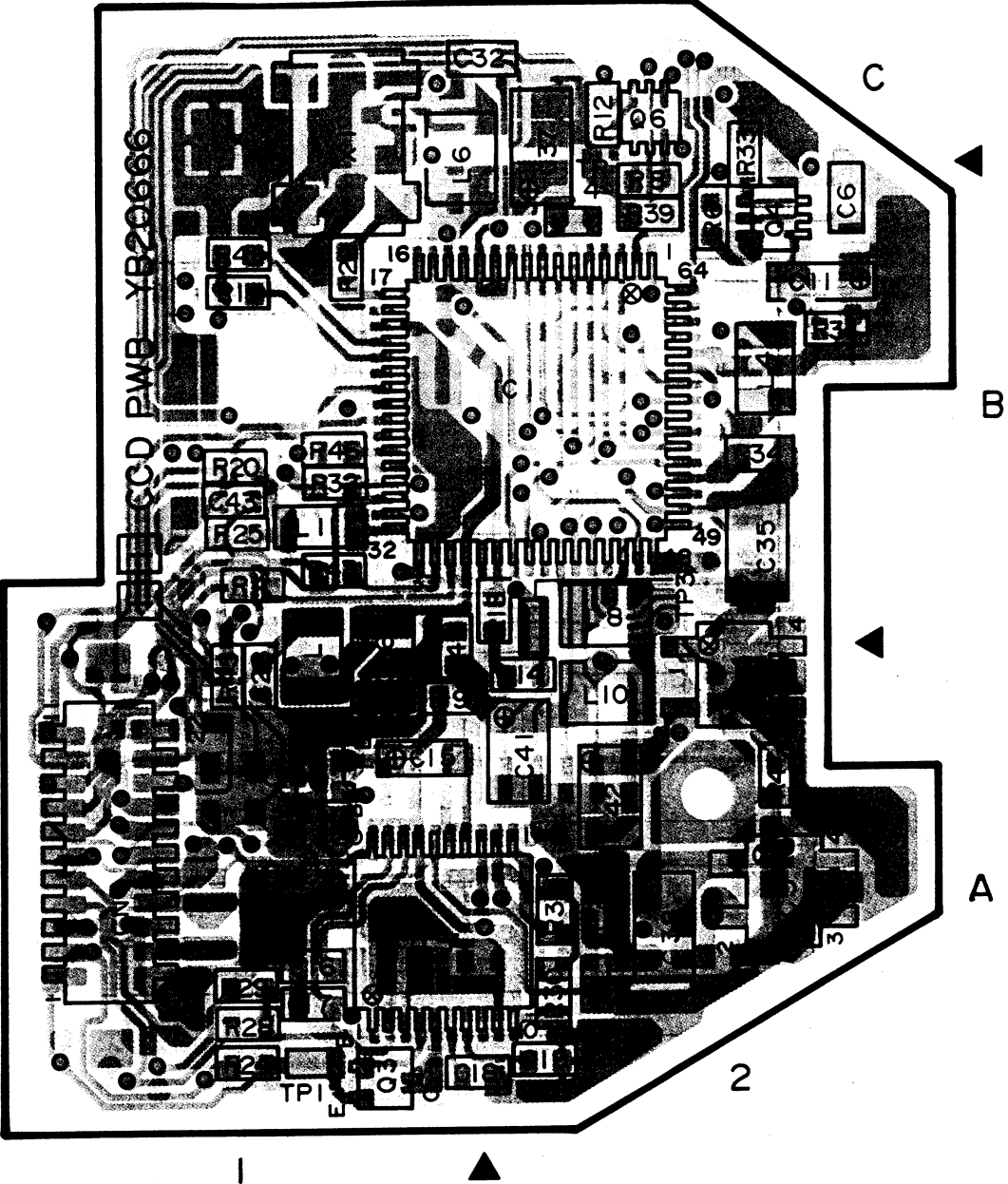


From/To 1 2
VIDEO
CN1
(Page 4-49)

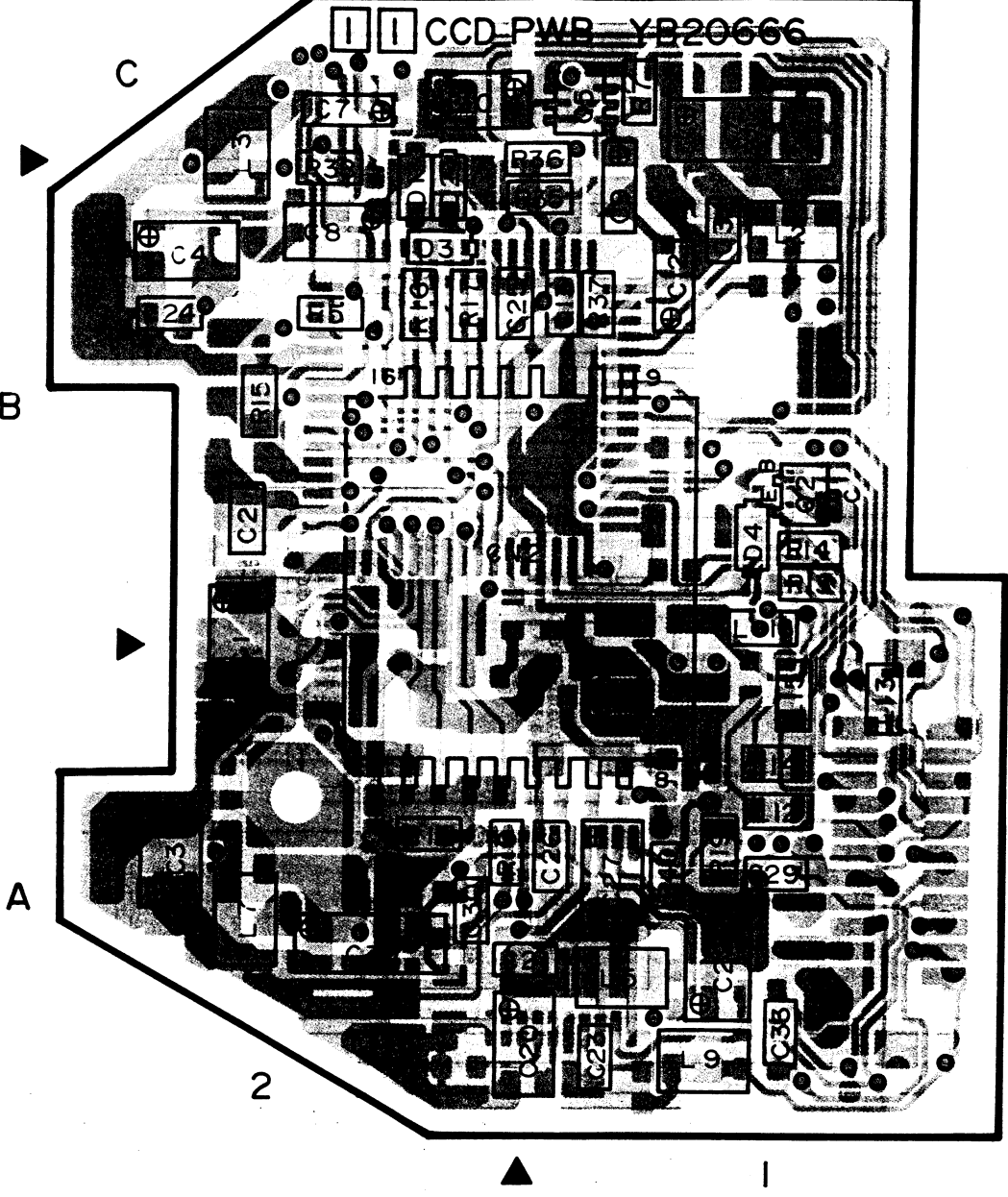
From/To 1 2
VIDEO
CN1
(Page 4-9, 4)

4.26 CCD CIRCUIT BOARD

FOIL SIDE
(B)



COMPONENT SIDE
(A)



PARTS LOCATION GUIDE

< 1 1 > CCD BOARD

REF. NO. LOCATION	
IC	
IC1	B-2B
IC4	B-2A
IC5	B-2A
IC7	B-1A
REF. NO. LOCATION	
TRANSISTOR	
Q1	B-1A
Q2	A-1B
Q3	B-1A
Q4	B-2B
Q5	A-1C
Q6	B-2C

REF. NO. LOCATION	
DIODE	
D1	A-2B
D2	A-2B
D3	A-2B
D4	A-1B
REF. NO. LOCATION	
RESISTOR	
R1	B-1B
R4	B-1B
R5	A-2B
R6	B-2B
R7	A-1C
R8	B-2B
R9	B-1A
R10	A-2A

R11	A-2A
R12	B-2C
R13	A-1B
R14	A-1B
R15	A-2B
R16	A-2B
R17	A-2B
R18	B-2B
R19	A-1A
R20	B-1B
R22	B-1B
R24	B-1A
R25	B-1B
R28	B-1A
R29	B-1A
R30	B-2A
R31	B-2A

R32	B-1B
R33	B-2C
R34	B-2B
R35	A-1B
R36	A-1B
R37	A-1B
R38	A-2B
R39	B-2B
R40	A-1A
R41	B-1B
R43	B-1B
R45	B-1A
R46	B-1B
R47	B-2A
REF. NO. LOCATION	
CAPACITOR	
C1	A-2B
C2	A-2B
C3	A-1B

C4	A-2B
C5	A-1C
C6	B-2B
C7	A-2C
C8	A-2B
C9	A-1B
C10	A-2C
C11	B-2B
C12	A-1B
C13	A-1B
C14	B-2A
C15	B-1A
C16	B-1A
C17	B-1A
C18	B-1A
C19	B-2A
C20	A-1A
C21	A-1A
C22	A-1A
C23	A-1A

C24	A-2B
C25	A-2B
C26	A-1A
C27	A-1A
C28	B-1A
C29	A-1A
C30	A-2A
C31	A-2A
C32	B-2C
C33	A-1A
C34	B-2B
C35	B-2B
C36	B-1A
C37	B-2C
C38	B-2A
C39	A-2A
C40	B-1A
C41	B-2A
C42	B-2A
C43	B-1B

REF. NO. LOCATION	
COIL	
L1	B-1A
L2	A-1B
L3	A-2C
L4	A-2B
L5	A-1A
L6	B-1C
L7	A-2A
L8	B-2B
L9	A-1A
L10	B-2B
L11	B-1B
L12	A-1A
L13	A-1A
L14	A-1A
L15	A-1A
L16	A-1B

REF. NO. LOCATION	
CRYSTAL RESONATOR	
X1	B-1C
REF. NO. LOCATION	
TEST PIN	
TP1	B-1A
TP2	B-2A
TP3	B-2B
TP4	B-2B
REF. NO. LOCATION	
CONNECTOR	
CN1	B-1A
CN2	A-2B

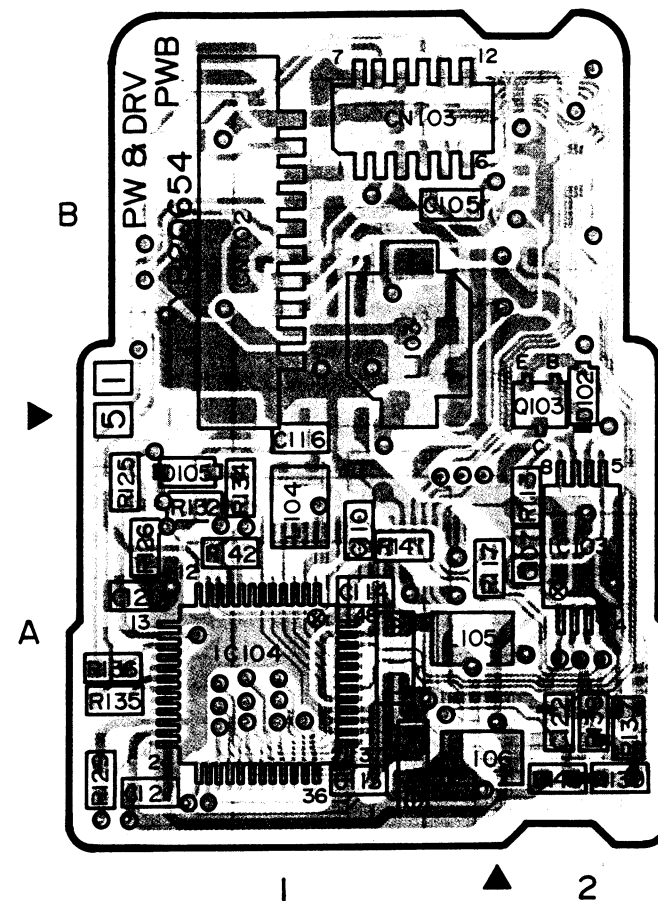
5



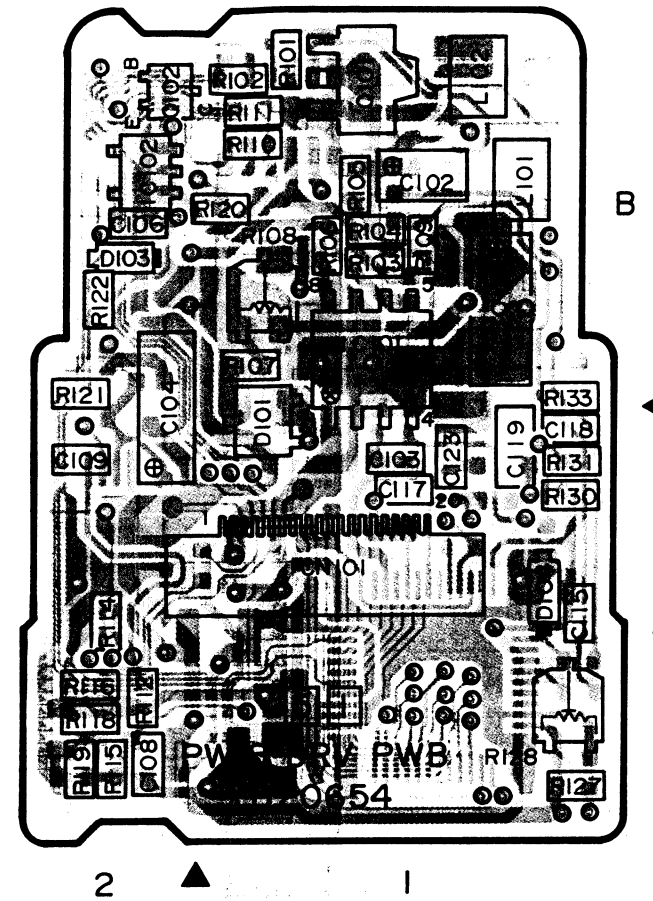
4.28 POWER & DRIVER AND CHROMA CIRCUIT BOARDS

— POWER & DRIVER —

FOIL SIDE
(B)



COMPONENT SIDE
(A)



PARTS LOCATION GUIDE

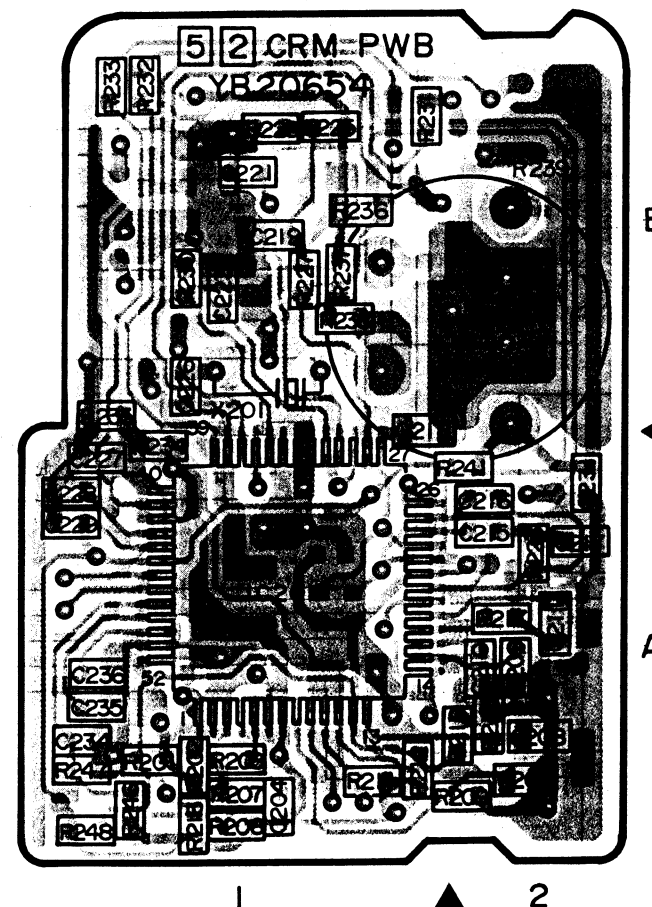
< 51 > POWER & DRIVER BOARD

REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION
IC		CAPACITOR		COIL	
IC101	A-1B	R104	A-1B	C101	A-1B
IC102	A-2B	R105	A-1B	C102	A-1B
IC103	B-2A	R106	A-1B	C103	A-1A
IC104	B-1A	R107	A-1B	C104	A-2B
TRANSISTOR		R108	A-1B	C105	B-1B
Q101	A-1B	R109	A-1B	C106	B-1B
Q102	A-2B	R110	A-1B	C107	B-2A
Q103	B-2B	R111	A-1B	C108	A-2A
DIODE		R112	A-2A	C109	A-2A
D101	A-1A	R113	B-2A	C110	B-1A
D102	B-2B	R114	A-2A	C111	B-1A
D103	A-2B	R115	A-2A	C112	B-1A
D104	A-1A	R116	A-2A	C113	B-1A
D105	B-1A	R117	B-1A	C114	B-1A
RESISTOR		R118	A-2A		
R101	A-1B	R119	A-2A		
R102	A-1B	R120	A-1B		
R103	A-1B	R121	A-2B		
		R122	A-2B		
		R123	B-1A		
		R124	B-1A		
		R125	B-1A		
		R126	B-1A		
		R127	A-1A		
		R128	B-1A		
		R129	B-1A		
		R130	A-1A		
		R131	A-1A		
		R132	B-1A		
		R133	A-1B		

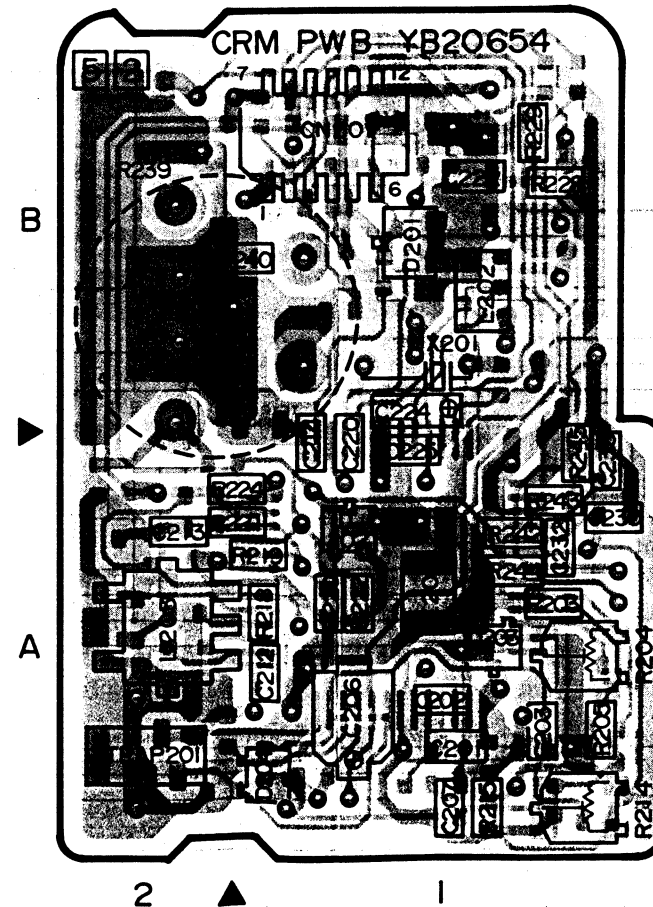
REF. NO.	LOCATION	REF. NO.	LOCATION
CONNECTOR		ADJUSTMENT	
CN101	A-1A	R108	A-1B
CN102	B-1B	R128	A-1A
CN103	B-1B		

— CHROMA —

FOIL SIDE
(B)



COMPONENT SIDE
(A)



PARTS LOCATION GUIDE

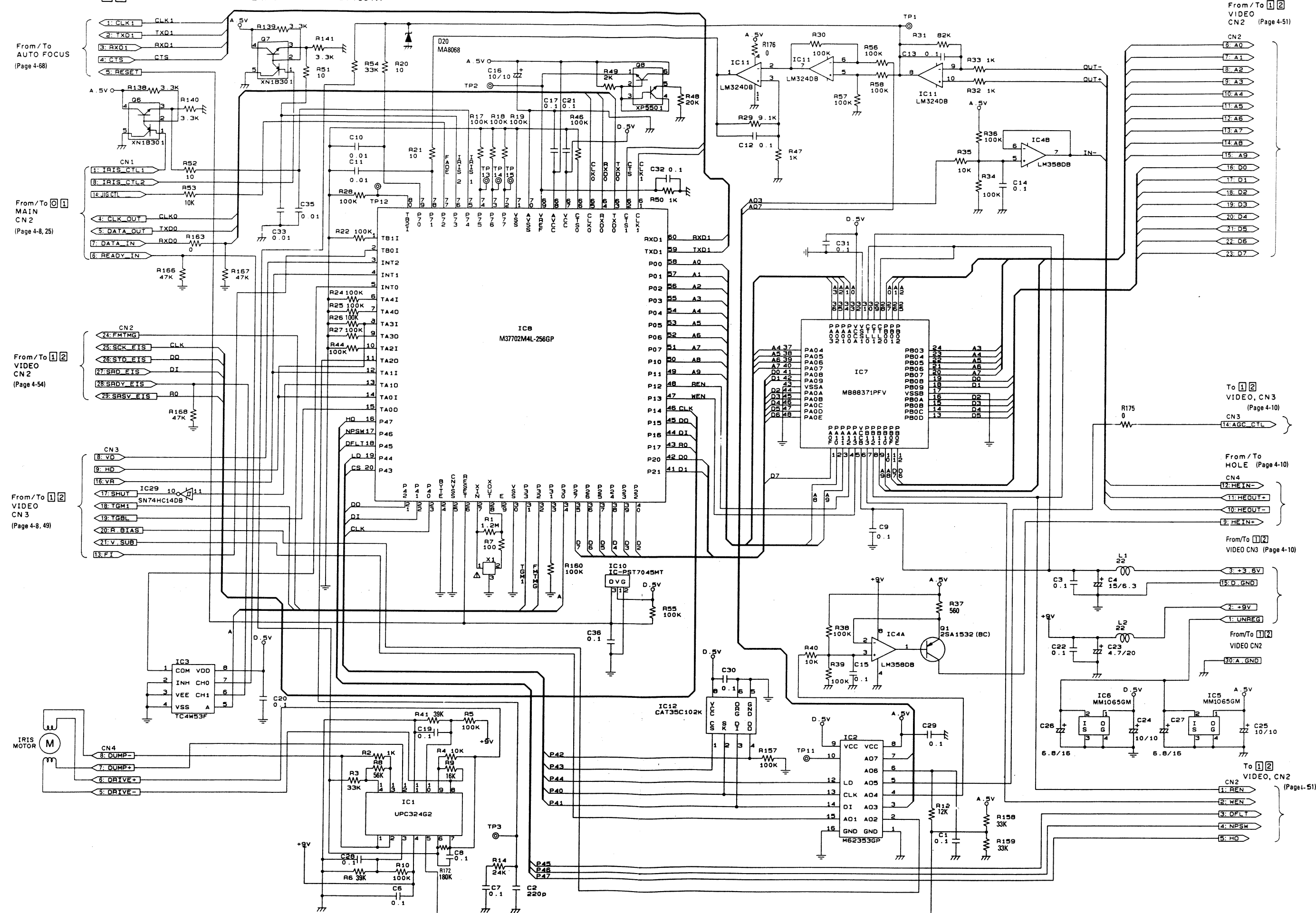
< 52 > CHROMA BOARD

REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION
IC		CAPACITOR		COIL	
IC201	B-1A	R215	A-1A	C201	A-1A
DIODE		R216	B-2A	C202	A-1A
D201	A-1B	R217	B-2A	C203	A-1A
D202	A-1A	R218	A-1A	C204	B-1A
D203	A-1A	R219	A-1A	C205	B-2A
D204	A-1A	R220	A-1A	C206	A-1A
RESISTOR		R221	A-1A	C207	A-1A
R201	B-1A	R222	A-1A	C208	B-2A
R202	B-1A	R223	B-2A	C209	B-2A
R203	A-1A	R224	A-1A	C210	B-2A
R205	A-1A	R225	B-1B	C211	B-2A
R206	B-1A	R226	B-1B	C212	A-1A
R207	B-1A	R227	B-1B	C213	A-2A
R208	B-1A	R228	A-1B	C214	A-1A
R209	B-2A	R229	A-1B		
R210	B-2A	R230	B-1B		
R211	B-1A	R231	B-1B		
R212	B-1A	R232	B-1B		
R213	B-1A	R233	B-1B		
		R234	B-1A		
		R235	B-1B		
		R236	B-1B		
		R237	B-1B		
		R238	B-1B		
		R239	A-1B		

REF. NO.	LOCATION	REF. NO.	LOCATION
TRAP		ADJUSTMENT	
TRAP201	A-2A	R204	A-1A
CRYSTAL RESONATOR		R214	A-1A
X201	B-1B	R239	B-2B
CONNECTOR			
CN201	A-1B		

4.29 CAMERA SYSTEM CONTROL SCHEMATIC DIAGRAM

1 3 CPU (CAMERA SYSTEM CONTROL SECTION)



A

B

C

4-65

4-66

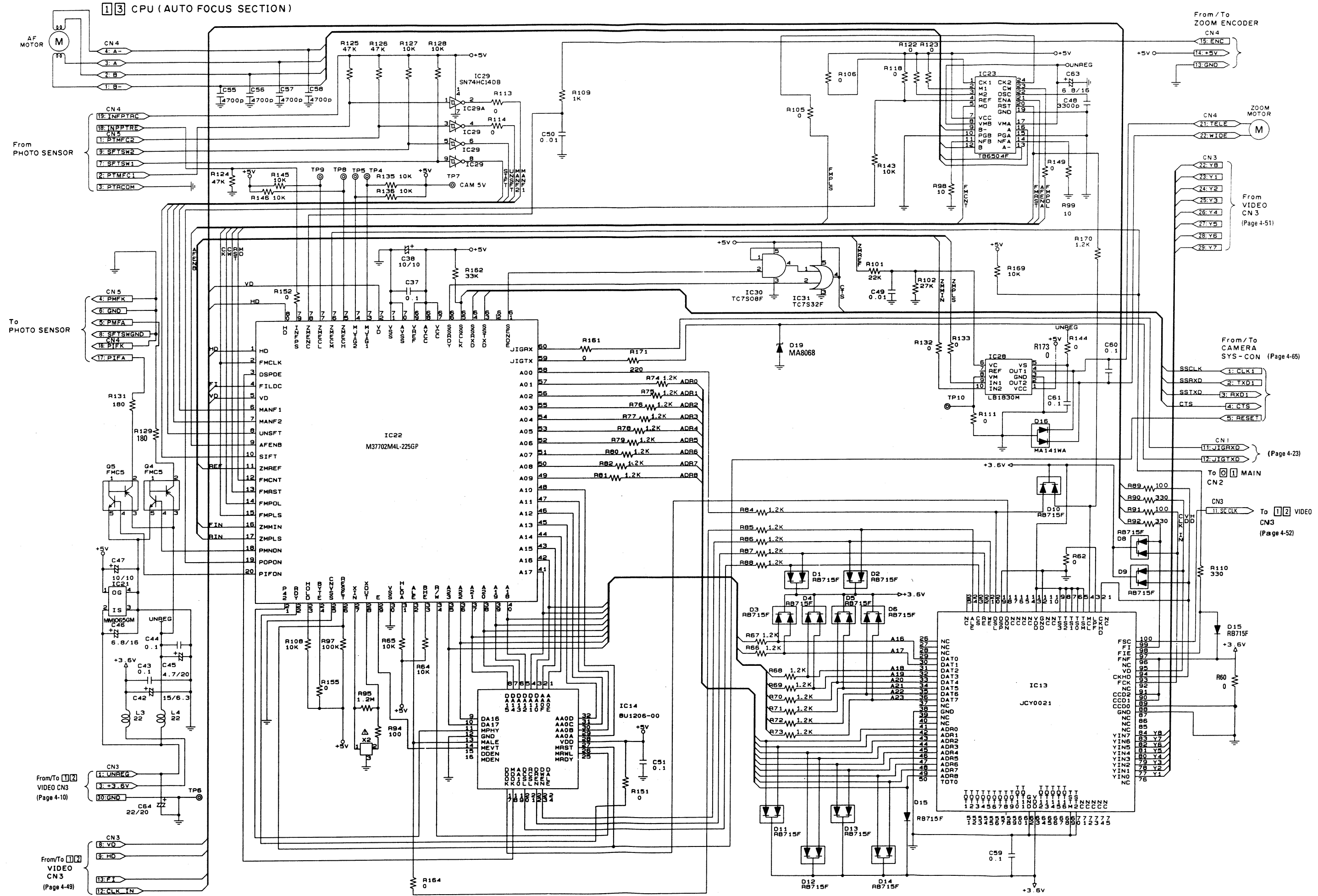
E

F

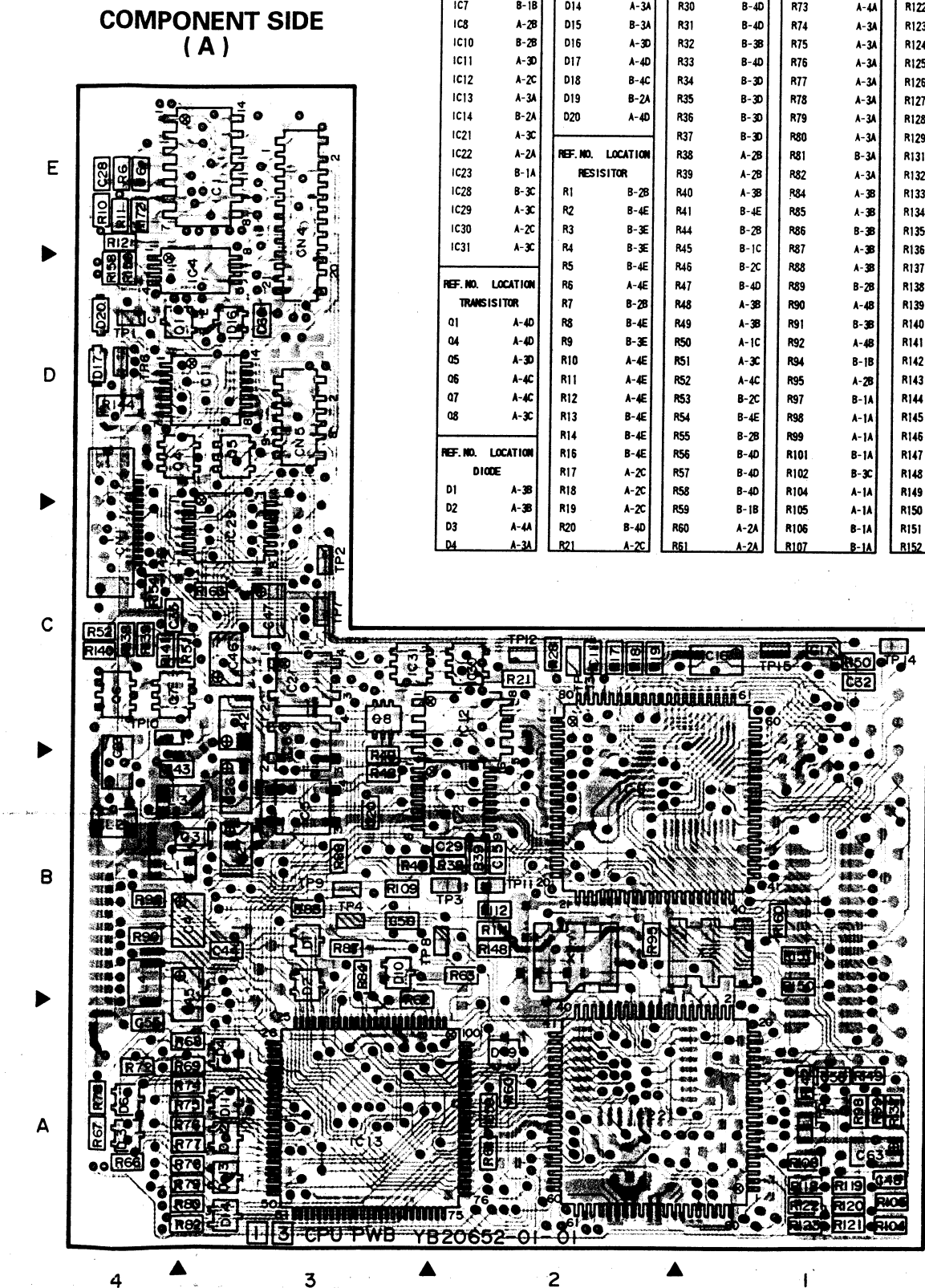
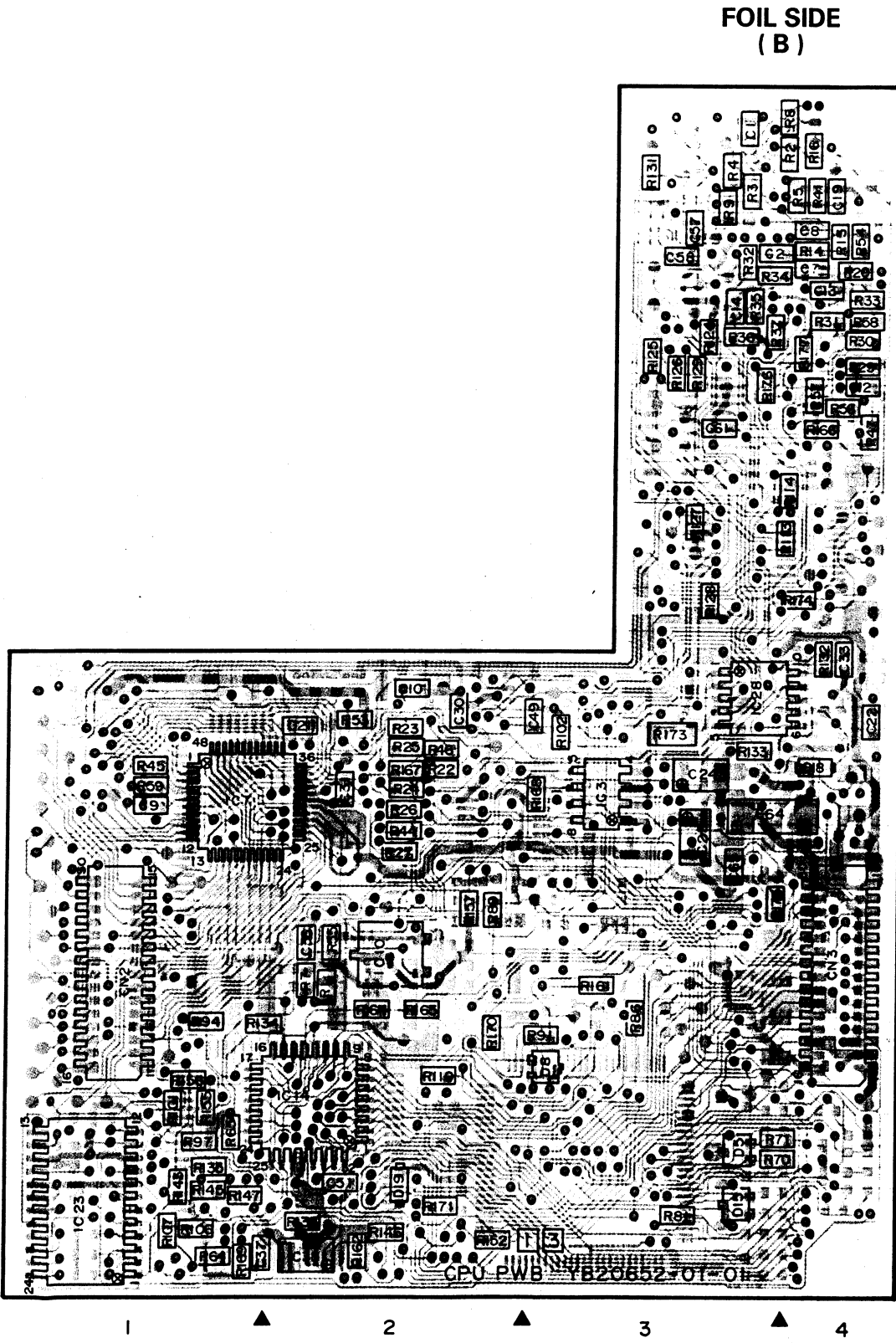
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4.30 AUTO FOCUS SCHEMATIC DIAGRAM



4.31 CPU CIRCUIT BOARD

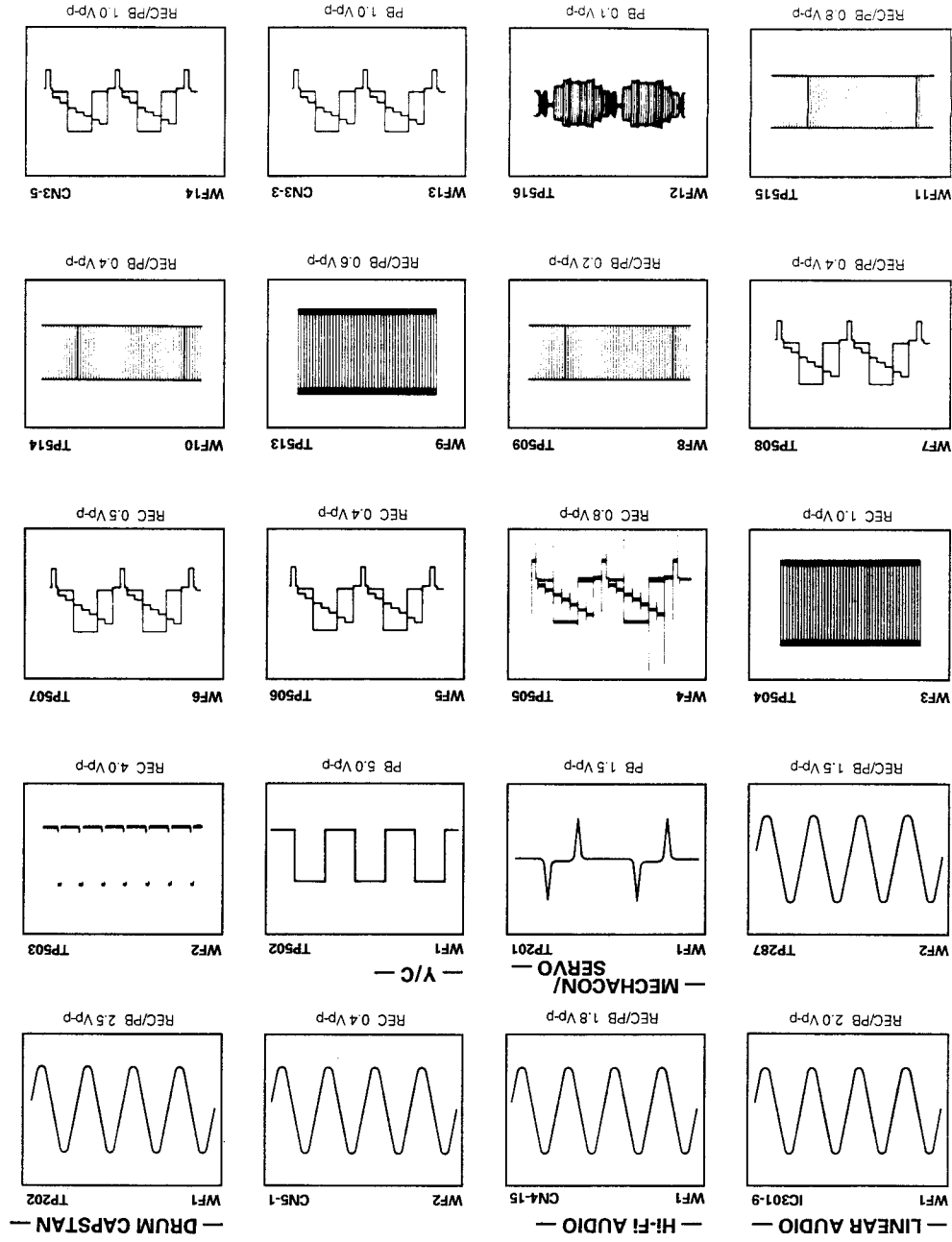


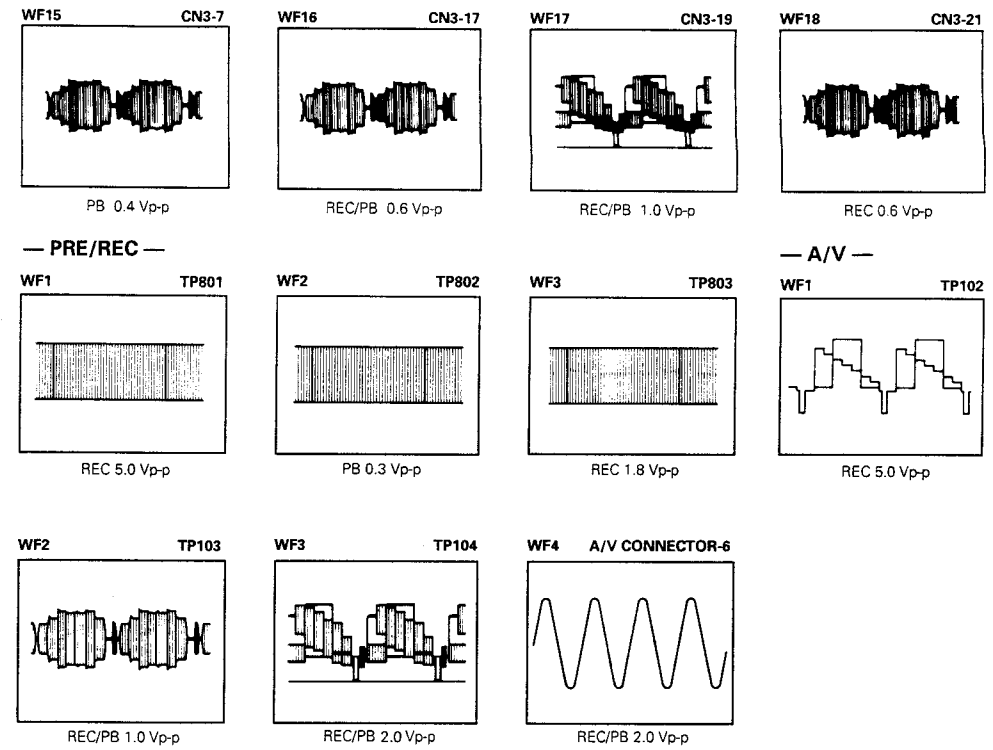
PARTS LOCATION GUIDE

<13>CPU BOARD

REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION	REF. NO.	LOCATION
IC1	A-3E	D5	B-3A	R22	B-2C	R62	A-3A	R108	A-1A	R154	A-4C	C16	A-1C	REF. NO.	LOCATION
IC2	A-2B	D6	A-4A	R23	B-2C	R63	A-2B	R109	A-3B	R155	B-1A	C17	A-1C	COIL	
IC3	B-3B	D8	B-3A	R24	B-2B	R64	B-1A	R110	B-2A	R156	B-1A	C19	B-4E	L1	A-4B
IC4	A-3D	D9	A-2A	R25	B-2C	R65	B-1A	R111	A-2B	R157	B-2B	C20	A-3B	L2	A-4B
IC5	A-3B	D10	A-3B	R26	B-2B	R66	A-4A	R112	A-2B	R158	A-4D	C21	B-2C	L3	A-4B
IC6	A-3C	D11	A-3A	R27	B-2B	R67	A-4A	R113	B-4C	R159	A-4D	C22	B-4C	L4	A-4B
IC7	B-1B	D12	A-3A	R28	A-2C	R68	A-4A	R114	B-4D	R160	A-1B	C23	B-4C		
IC8	A-2B	D13	A-3A	R29	B-4D	R69	A-3A	R115	A-1A	R161	B-3B	C24	B-3C	REF. NO.	LOCATION
IC9	A-3C	D14	A-3A	R30	B-4D	R70	B-3A	R116	A-1A	R162	B-2A	C25	B-3B	RESONATOR	
IC10	B-2B	D15	B-3A	R31	B-4D	R71	B-3A	R117	A-1A	R163	A-3C	C26	A-3B	X1	A-2B
IC11	A-3D	D16	A-3D	R32	B-3B	R72	A-4A	R118	A-1A	R164	B-2B	C27	A-3B	X2	A-1B
IC12	A-2C	D17	A-4D	R33	B-4D	R73	A-4A	R119	A-1A	R165	B-2B	C28	A-4E		
IC13	A-3A	D18	B-4C	R34	B-3D	R74	A-3A	R120	A-1A	R166	B-4D	C29	A-2B	REF. NO.	LOCATION
IC14	B-2A	D19	B-2A	R35	B-3D	R75	A-3A	R121	A-1A	R167	B-2C	C30	B-2C	TEST PIN	
IC21	A-3C	D20	A-4D	R36	B-3D	R76	A-3A	R122	A-1A	R168	B-3B	C31	B-2B	TP1	A-4D
IC22	A-2A			R37	B-3D	R77	A-3A	R123	A-1A	R169	B-1A	C32	A-1C	TP2	A-3C
IC23	B-1A			R38	A-2B	R78	A-3A	R124	B-3D	R170	B-2B	C33	B-4C	TP3	A-2B
IC28	B-3C			R39	A-2B	R79	A-3A	R125	B-3D	R171	B-2A	C35	A-4C	TP4	A-3B
IC29	A-3C			R40	A-3B	R80	A-3A	R126	B-3D	R172	A-4E	C36	B-2B	TP5	A-1A
IC30	A-2C			R41	B-4E	R81	B-3A	R127	B-3C	R173	B-3C	C37	B-1A	TP6	A-4D
IC31	A-3C			R42	B-4E	R82	A-3A	R128	B-3C	R174	B-4C	C38	B-2A	TP7	A-3C
				R43	B-3E	R83	A-3B	R129	B-3D	R175	B-3B	C42	A-3C	TP8	A-2B
				R44	B-2B	R84	A-3B	R130	B-3E	R176	B-3D	C43	A-4B	TP9	A-3B
				R45	B-1C	R85	A-3B	R131	B-3E	R177	B-4D	C44	A-3B	TP10	A-4C
				R46	B-2C	R86	B-3B	R132	B-4C			C45	A-3A	TP11	A-2B
				R47	B-4D	R87	A-3B	R133	B-3C			C46	A-3C	TP12	A-2C
				R48	A-3B	R88	A-3B	R134	B-1B			C47	A-3C	TP13	A-2C
				R49	A-3B	R89	B-2B	R135	B-1A			C48	A-1A	TP14	A-1C
				R50	A-1C	R90	A-4B	R136	B-2A			C49	B-3C	TP15	A-1C
				R51	A-3C	R91	B-3B	R137	A-1A			C50	A-3B		
				R52	A-4C	R92	A-4B	R138	A-4C			C51	B-2A	REF. NO.	LOCATION
				R53	B-2C	R93	B-1B	R139	A-4C			C52	A-4A	CONNECTOR	
				R54	B-4E	R94	B-1A	R140	A-4C			C53	A-3B	CN1	A-4C
				R55	B-2B	R95	A-2B	R141	A-4C			C54	A-3B	CN2	B-1B
				R56	B-4D	R96	A-1A	R142	A-1A			C55	A-4A	CN3	B-4B
				R57	B-4D	R97	B-1A	R143	B-1A			C56	A-1A	CN4	A-3E
				R58	B-4D	R98	A-1A	R144	A-4D			C57	B-3E	CN5	A-3D
				R59	B-1B	R99	A-1A	R145	B-1A			C58	B-3D		
				R60	A-2A	R100	B-1A	R146	B-2A			C59	A-2A		
				R61	A-2A	R101	B-1A	R147	B-1A			C60	A-3D		
						R102	B-3C	R148	A-2B			C61	B-3D		
						R103	A-1A	R149	A-1A			C62	A-1A		
						R104	A-1A	R150	A-1B			C63	B-3B		
						R105	A-1A	R151	A-1B			C64	B-3B		
						R106	B-1A	R152	B-2A			C65	B-3B		
						R107	B-1A								

4.32 WAVEFORMS



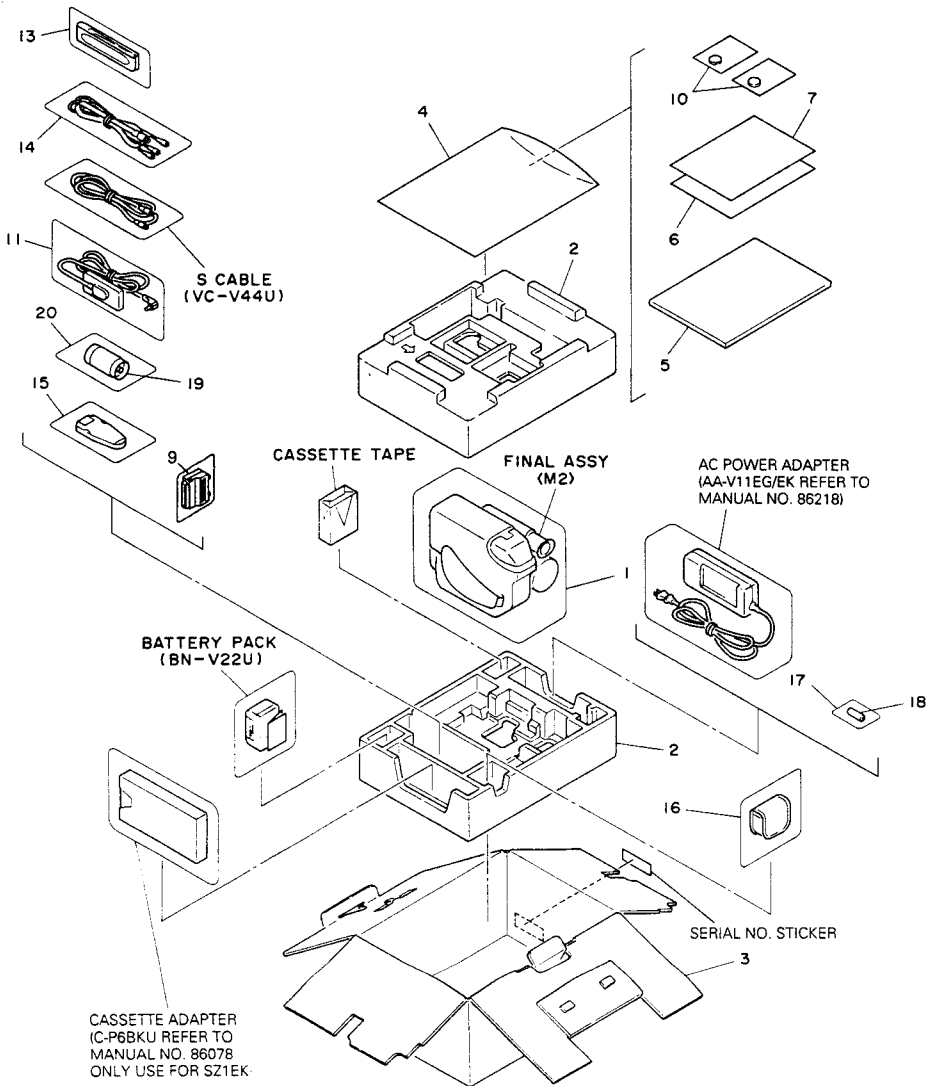


SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the Δ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING ASSEMBLY <M1>



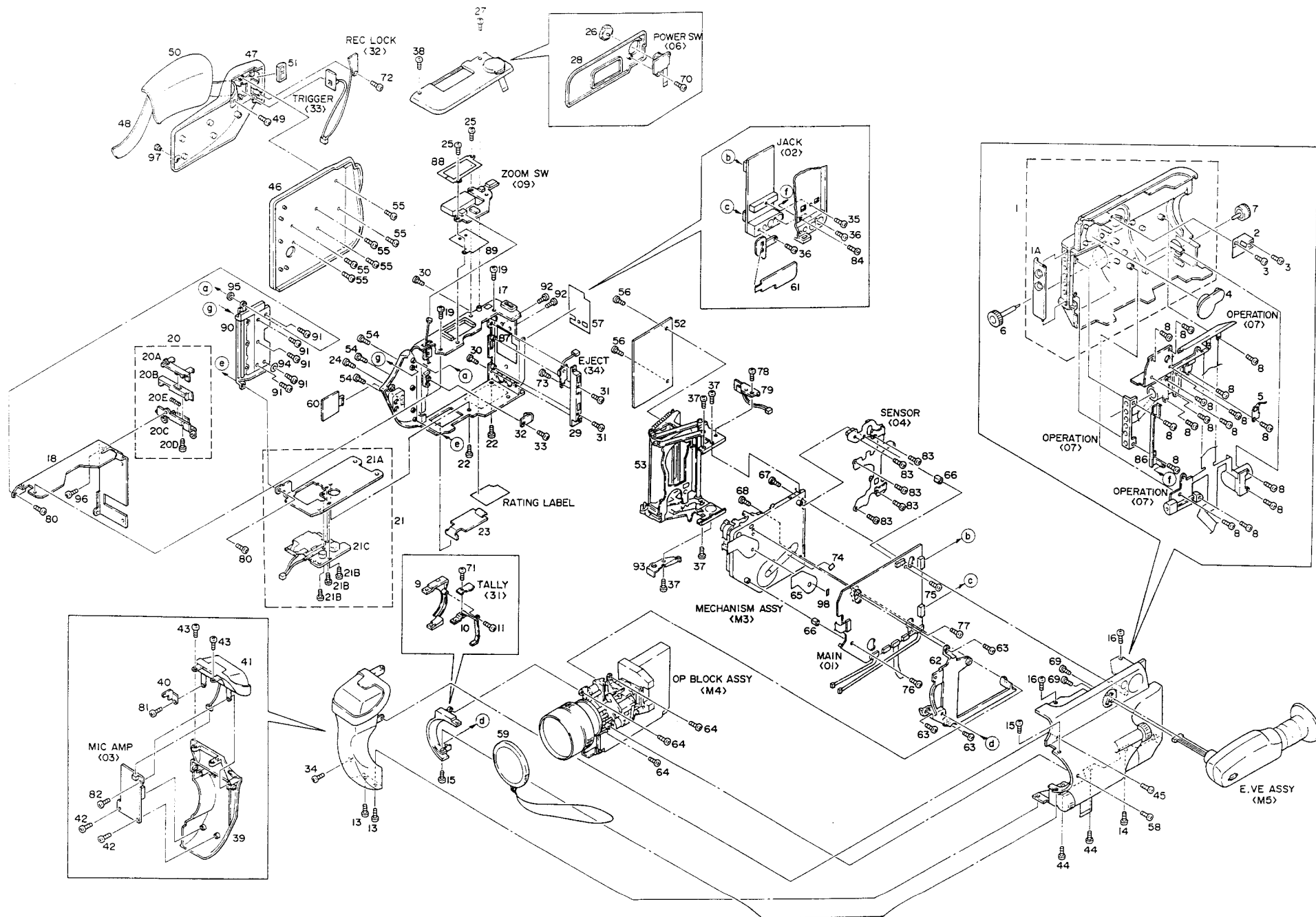
Δ REF No. PART No. PART NAME, DESCRIPTION

PACKING ASSEMBLY <M1>

1	YQM30021-24	POLY BAG
2	YQ31374A	CUSHION ASSY
3	YQ31205-36-12	PACKING CASE,EK
3	YQ31205-35-13	PACKING CASE,EG
4	PQM30023-5	POLY BAG,EK
4	QPGA025-03505	POLY BAG,EG
Δ 5	YU30052-334	INSTRUCTIONS,EG*1
Δ 5	YU30052-335	INSTRUCTIONS,EK*2
6	BT-20066A	E.DISTR.LIST,EK
7	BT-20060	GUARANTY CARD,EK
9	PEMC1000	CONNECTOR
Δ 10	YU40547	BATTERY,X2
11	PEAC0134-01-03	DC PLUG CORD
13	YQ10188A-1	S STRAP ASSY,EK
14	YQ20638A	CABLE ASSY
Δ 15	YQ20637-3	REMOTE CONTROLLER
16	YQ20654B	LENS CASE
17	QPGA005-01005	POLY BAG,EK
18	UM-3DJ	BATTERY,EK
19	PEME0892	MICRO RING
20	QPGA007-01505	POLY BAG

• INSTRUCTIONS

*1 EG	ENGLISH GERMAN FRENCH SPANISH DUTCH SWEDISH ITALIAN DANISH FINNISH
* 2 EK	ENGLISH



#△ REF No. PART No. PART NAME, DESCRIPTION

FINAL ASSEMBLY <M2>

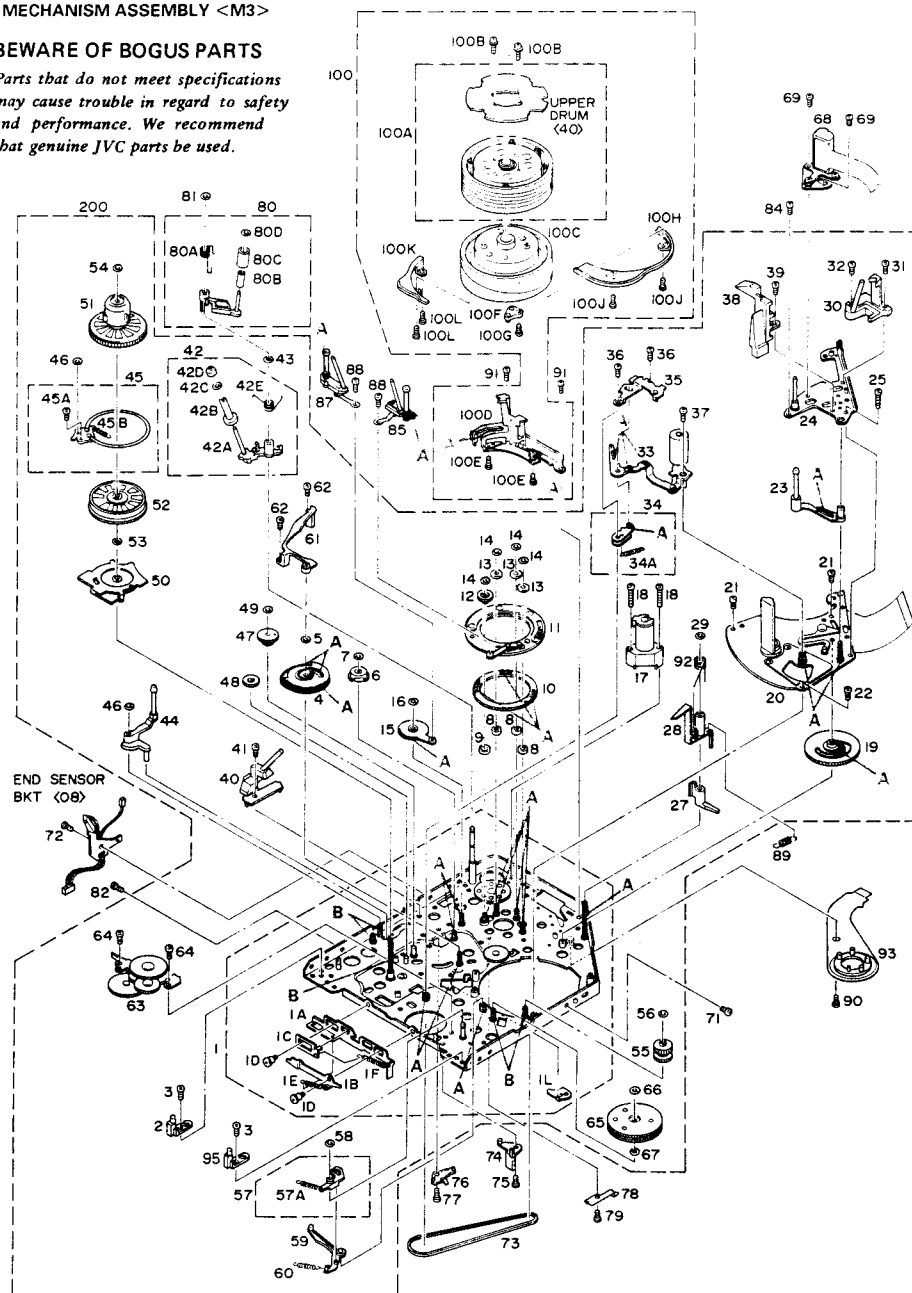
△ 1	YQ10387C	LOWER CASE ASSY
1A	YQ31318B-4	COVER ASSY
2	YQ42868	BRACKET(E.VF)
3	YQM30052	SPECIAL SCREW,X2
4	YQ31254-2	BUTTON(MAIN)
5	YQ42967	BRACKET(EARTH)
6	YQ42883-1-1	KNOB(SCENE)
7	YQ42884-1-1	KNOB(IRIS)
8	YQM30052	SPECIAL SCREW,X16
9	YQ31313A-1	LENS RING ASSY
10	YQ42860-1-2	BRACKET(L.RING)
11	YQM30032-44	SPECIAL SCREW,M2X4
13	YQM30032-3-2	SPECIAL SCREW,X2 M2X5
14	YQM30032-1-2	SPECIAL SCREW,M2X4
15	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
16	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
17	YQ10390C	UPPER CASE ASSY
18	YQ31266-1-2	BRACKET(FRAME1)
19	YQM30032-37	SPECIAL SCREW,X2 M2X4
20	YQ31314A-2	BATTERY LOCK ASSY
20A	YQ31258-1-1	KNOB(B.LOCK)
20B	YQ31291-1-2	BATTERY LOCK BASE
20C	YQ42811	BRACKET(B.LOCK)
20D	YQM30032-44	SPECIAL SCREW,M2X4
20E	YQM30002-25-6	COMPRESSION SPRING
21	YQ31325A-3	BASE ASSY
21A	YQ31267-1-3	BRACKET(FRAME2)
21B	YQM30032-37	SPECIAL SCREW,X3 M2X3
21C	YQ20613-1-1	BASE
22	YQM30032-37	SPECIAL SCREW,X2 M2X3
△ 23	YQ31268-1-2	CLOCK BATTERY COVER
24	YQM30032-44	SPECIAL SCREW,M2X4
25	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
26	YQ42810	KNOB(POWER)
27	YQM30032-44	SPECIAL SCREW,M2X4
28	YQ31281B-7	TOP COVER ASSY
29	YQ42874A-3	CASSETTE COVER LOCK ASSY
30	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
31	YQM30032-44	SPECIAL SCREW,X2 M2X4
32	YQ31220A-2	TAPE GUIDE ASSY
33	YQM30032-44	SPECIAL SCREW,M2X4
34	YQM30032-44	SPECIAL SCREW,M2X4
35	YQM30032-44	SPECIAL SCREW,M2X4
36	YQM30032-44	SPECIAL SCREW,X2 M2X4
37	SSSH1730M	SCREW,X4
38	YQM30032-6-2	SPECIAL SCREW,M2X8
△ 39	YQ10392C	FRONT PANEL ASSY
40	YQ42944	BRACKET(FRONT)
41	YQ20605-2	MICROPHONE
42	YQM30032-44	SPECIAL SCREW,X2 M2X4
43	YQM30032-44	SPECIAL SCREW,X2 M2X4

#△ REF No. PART No. PART NAME, DESCRIPTION

44	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
45	YQM30032-1-2	SPECIAL SCREW,M2X4
△ 46	YQ20611C	CASSETTE COVER ASSY
47	YQ31319B-4	GRIP COVER ASSY
48	YQ31337-1-1	GRIP BELT
49	GPSF2005Z	SCREW
50	YQ30950-3-8	GRIP PAD
51	YQ31283-1-3	REC LOCK BUTTON
52	YQ31381B-2	CASSETTE COVER INSIDE ASSY
53	YQ31059A-11	HOUSING ASSY
54	YQM30032-37	SPECIAL SCREW,X3 M2X3
55	YQM30032-2-2	SPECIAL SCREW,X6 M2X5
56	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
△ 57	YQ31315-3	SHEET(BATTERY)
58	YQM30032-44	SPECIAL SCREW,M2X4
59	YQ40834D	HOOD CAP ASSY
60	YQ31327-1-4	MIC JACK COVER
61	YQ31301-1-4	AV JACK COVER
62	YQ20624-1-4	OP HOLDER
63	YQM30032-3-2	SPECIAL SCREW,X3 M2X5
64	YQM30032-2-2	SPECIAL SCREW,X3 M2X5
65	YU41965	SHIELD PLATE
66	PEME0898	SPACER,X2
67	YQM30032-44	SPECIAL SCREW,M2X4
68	YQM30032-3-2	SPECIAL SCREW,M2X5
69	SSSF2006M	SCREW,X2
70	YQM30032-40	SPECIAL SCREW,M2X4
71	YQM30032-37	SPECIAL SCREW,M2X3
72	YQM30032-2-2	SPECIAL SCREW,M2X5
73	YQM30032-37	SPECIAL SCREW,M2X3
74	YQM30029-147	SPACER
75	YQ40691-2	SPECIAL SCREW,M1.9X6
76	SPSH1750M	SCREW
77	SPSH1720M	SCREW
78	SPSH1720M	SCREW
79	YU41960	DEW SENSOR
80	YQM30032-2-2	SPECIAL SCREW,X2 M2X5
81	YQM30032-2-2	SPECIAL SCREW,M2X5
82	YQM30032-2-2	SPECIAL SCREW,M2X5
83	SPSH1725M	SCREW,X5
84	YQM30032-1-2	SPECIAL SCREW,M2X4
86	YQ42976	BRACKET(LOWER)
87	YQ42971	D.FACE SHEET
88	YQ42947-1-2	SHEET(ZOOM)
89	YQ42972	SPACER(ZOOM)
90	YQ42945A-3	HINGE ASSY
91	YQM30032-44	SPECIAL SCREW,X5 M2X4
92	YQM30032-1-2	SPECIAL SCREW,X2 M2X4
93	YQ42970	BRACKET(STOPPER)
94	YQM30050-8	SPACER
95	YQ42986	SPACER
96	YQM30032-1-2	SPECIAL SCREW,M2X4
97	YQ40703	CAP
98	YQ43025	SHEET

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



Classification	Name	Part No.	Symbol in drawing
Grease	Moriton Grease No. 1	MOS2-C	A
Oil	Cosmo Hydro HV100	YTU94027	B

Note: The section marked in **A** and **B** indicate lubrication and greasing areas.

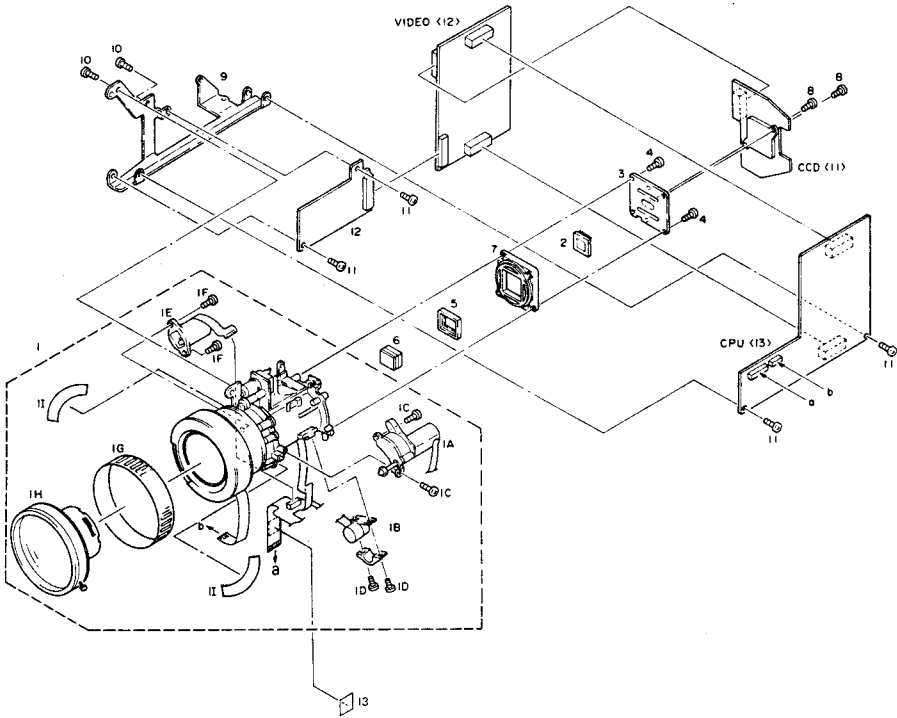
≠△ REF No. PART No. PART NAME, DESCRIPTION

MECHANISM ASSEMBLY <M3>

1	YQ10329A-23	MAIN DECK ASSY
1A	YQ31210-1-1	LOCK PLATE
1B	YQ42757-1-4	CANCEL PLATE
1C	YQ42756A-3	LIMIT PLATE ASSY
1D	YQ42375-2	SPECIAL SCREW,X2 M1.4X0.9
1E	YQ42866	TENSION SPRING
1F	YQ42866-2	TENSION SPRING
1L	YQ42759	SUPPORT PLATE
2	YQ42377-1-5	GUIDE PIN
3	SPSH1735M	SCREW,X2
4	YQ20694	CTL CAM GEAR
5	PQM30017-25	SLIT WASHER
6	YQ42234-1-4	LOADING GEAR 2
7	PQM30017-27	SLIT WASHER
8	YQ42141	LOADING GUIDE,X3
9	YQ41902-1-1	LOADING GUIDE 2
10	YQ42378-1-2	DRIVE GEAR
11	YQ42379A-2	LOADING RING ASSY
12	YQ42048	SUPPLY MIDDLE GEAR
13	YQ41904	L.WASHER,X3
14	PQM30017-27	SLIT WASHER,X4
15	YQ42384A	SUPPLY LINK GEAR ASSY
16	PQM30017-27	SLIT WASHER
△ 17	YU41889	MODE CTL MOTOR
18	SPSH1710M	SCREW,X2
19	YQ31328-1-1	MIDDLE POLE CAM GEAR
△ 20	YU41890-1-4	CAPSTAN MOTOR
21	SPSH1725M	SCREW,X2
22	SPSH1730M	MINI SCREW
23	YQ42385A-1	MIDDLE POLE ARM ASSY
24	YQ42391A	SUB DECK ASSY
25	SPSH1760M	SCREW
27	YQ42396	LOCK ARM(1)
28	YQ42397A-1	LOCK ARM(2) ASSY
29	PQM30017-25	SLIT WASHER
30	YQ42400A-3	MIDDLE POLE CATCHER ASSY
31	SPSH1750M	SCREW
32	SPSH1760M	SCREW
33	YQ31231A-2	PINCH ROLLER ARM ASSY
34	YQ42199A-2	SPRING PLATE ASSY
34A	YQ41551-1-3	TENSION SPRING
35	YQ41553-1-9	GUIDE PLATE
36	SPSH1425M	SCREW,X2
37	YQM30032-21	SPECIAL SCREW,M1.7X3
38	YQ31330	CASSETTE BLOCK
39	SPSH1730M	MINI SCREW
40	YQ42407A-1	SUPPLY SLANT POLE ASSY
41	SPSH1735M	SCREW
42	YQ42701A-4	IMPEDANCE ROLLER ARM ASSY
42A	YQ42702A	IMPEDANCE ROLLER ARM SUB ASSY
42B	YQ42704A-4	IMPEDANCE ROLLER ASSY
42C	PQM30017-27	SLIT WASHER
42D	YQ42740	CAP
42E	YQ42413	TORSION SPRING
43	PQM30017-25	SLIT WASHER
44	YQ42420A-4	TENSION ARM ASSY
45	YQ42423A-1	BAND ARM ASSY
45A	YQM30032-46	SPECIAL SCREW,M1.4X3.5
45B	YQ42429-1-2	TENSION SPRING
46	PQM30017-27	SLIT WASHER,X2

≠△ REF No.	PART No.	PART NAME, DESCRIPTION
47	YQ41559-1-2	ENCODER GEAR(1)
48	YQ41560	ENCODER GEAR(2)
49	PQM30017-27	SLIT WASHER
50	YU41407-1-3	CAM SW ASSY
51	YQ42485A-3	SUPPLY RELL DISC ASSY
52	YQ42487A-1	BAND REEL ASSY
53	Q03093-835	WASHER
54	PQM30017-27	SLIT WASHER
55	YQ42773	TAKE-UP GEAR
56	PQM30017-27	SLIT WASHER
57	YQ41628A	SEARCH BRAKE SUB ASSY
57A	YQ41551-2	TENSION SPRING
58	PQM30017-27	SLIT WASHER
59	YQ31170-1-2	BRAKE DRIVE LEVER
60	YQ42835	TENSION SPRING
61	YDM2062-2-4	SUPPLY GUIDE RAIL
62	SPSH1735M	SCREW,X2
63	YU41892-1-6	CLUTCH UNIT
64	SPSH1725M	SCREW,X2
65	YU41459-1-2	TAKE-UP CLUTCH ASSY
66	PQM30017-27	SLIT WASHER
67	Q03093-835	WASHER
68	YQ42430A-6	A/C HEAD FINAL ASSY
69	YQ40904A-1	ALOCK SCREW,X2
71	YQ42172	SPECIAL SCREW
72	SPSH1735M	SCREW
73	YQ41558	TIMING BELT
74	YQ31280	PWB HOLDER
75	SPSH1725M	SCREW
76	YQ31058-1-1	LED GUIDE
77	SPSH1725M	SCREW
78	YU41447-1-5	BRUSH
79	YQ43032	SCREW
80	YQ42414A-3	HEAD CLEANER ASSY
80A	YQ42417-1-1	TORSION SPRING
80B	YQ42418	ROLLER
80C	YQ42419-2	CLEANER
80D	YQM30017-8	SLIT WASHER
81	PQM30017-25	SLIT WASHER
82	YQ42842	SPECIAL SCREW
84	SPSK1720M	SCREW
85	YU41911-1-2	TAKE-UP POLE BASE ASSY
87	YQ42787A-3	SUPPLY POLE BASE ASSY
88	YQ42009	SPECIAL SCREW,X2 M1.2X1.5
89	YQM30001-58	TENSION SPRING
90	SPSN1740Z	SCREW
91	YQ42886	SPECIAL SCREW,X2
92	YQ42399-1-2	TORSION SPRING
93	YQ42892A-1	RING CONNECTOR ASSY
95	YQ43052A	GUIDE PIN ASSY
100	YDV2055A	DURM FINAL ASSY
100A	YDM2064A	UPPER DRUM ASSY
100B	YDM4031	SCREW,X2
100C	YDM2066A-10	LOWER DRUM ASSY
100D	YDM2056-1-6	UV BASE
100E	YQ42886	SPECIAL SCREW,X2
100F	YDM4073	DRUM SPACER
100G	SPSK1734M	SCREW
100H	YDM2063-1-5	TAKE-UP GUIDE RAIL
100J	SPSH1725M	SCREW,X2
100K	YDM2062	SUPPLY GUIDE RAIL
100L	SPSH1725M	SCREW,X2
200	YMA0010A	MECHA(A) ASSY

5.4 OPTICAL BLOCK ASSEMBLY <M4>



#△ REF No. PART No. PART NAME, DESCRIPTION

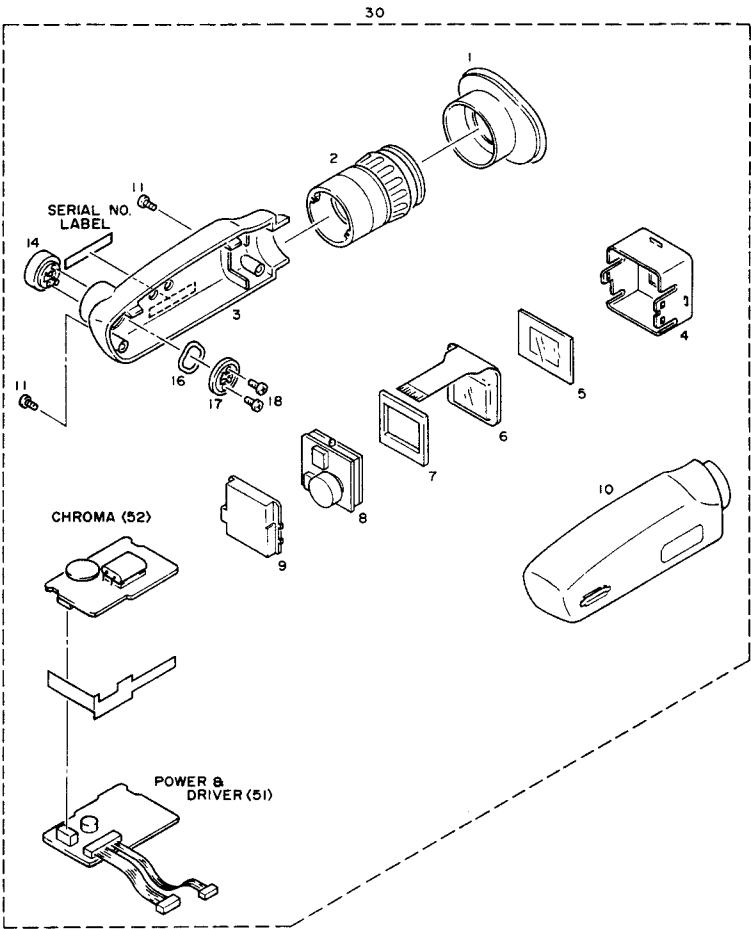
OPTICAL BLOCK ASSEMBLY <M4>

△ 1	YU30686-5-4	OP BLOCK ASSY
1A	YU30686-001	ZOOM MOTOR UNIT
1B	YU30686-002	AF MOTOR UNIT
1C	YU30686-003	SCREW,X2
1D	YU30686-004	SCREW,X2
1E	YU30686-006	IRIS MOTOR
1F	YU30686-010	SCREW,X2
1G	YU30686-011	FOCUS GUM RING
1H	YU30686-013	FRONT LENS

#△ REF No. PART No. PART NAME, DESCRIPTION

1I	YU30686-016	SPACER,X2
△ 2	ICX059AK-6	CCD ASSY
3	YQ42533	CCD BASE
4	SPSN2080D	SCREW,X2
5	YQ42774-1-3	SPACER RUBBER
6	YU41903	OPTICAL LPF
7	YQ31150	OPTICAL LPF HOLDER
8	SPSP2006Z	SCREW,X2
9	YQ31273-1-2	DIGIT PWB HOLDER
10	YQM30032-44	SPECIAL SCREW,X2 M2X4
11	YQM30032-1-2	SPECIAL SCREW,X4 M2X4
12	PEAS2123	DC-DC CONVERTER
13	YU42004	SHEET

5.5 ELECTRONIC VIEWFINDER ASSEMBLY <M5>



#△ REF No. PART No. PART NAME, DESCRIPTION

ELECTRONIC VIEWFINDER ASSEMBLY <M5>

1	PEDP0071-002	EYE CAP
2	PEDP0071-001	LENS ASSY
△ 3	YQ10397-2	BOTTOM CASE
4	YQ31089-1-5	LCD HOLDER
5	YQ42500-2-5	LCD WINDOW
6	PEDP0100	LCD PANEL
7	YQ42502-1-2	LAMP DAMPER

#△ REF No. PART No. PART NAME, DESCRIPTION

8	PEDP0101-01-01	LAMP
9	YQ31090	LCD COVER
△ 10	YQ10396-2-5	TOP CASE
11	SPSF1760D	SCREW,X2
14	YQ42847-1-1	BUSHING
16	YQ42845	WAVE WASHER
17	YQ42846-1-2	SHOE COVER
18	SPSF2006Z	SCREW,X2
△ 30	YS20728A	E.VF ASSY

5.6 ELECTRICAL PARTS LIST

#△ REF No. PART No. PART NAME, DESCRIPTION

MAIN BOARD ASSEMBLY <01>

PWBA	YB10106C-01-C2	MAIN BOARD ASSY2
IC1	UPD78P148GF-P10	IC
IC2	S-8052HNM-CR-X	IC
IC4	TMF2001DB	IC
IC5	UPD6456GS-629-X	IC
IC6	BU2042F	IC
IC7	BA6287F	IC
IC9	MM1065GM	IC
IC10	TC4W66F	IC
IC11	TC4S66F	IC
IC12	NJM2249M	IC
IC13	S-80748AN-JC-X	IC
IC201	BA7043FS	IC
IC202	BA6405F	IC
IC203	JCM5038-XE	IC
IC205	LM393DB-XE	IC
IC281	VC5035	IC
IC301	BA7757BK	IC
IC401	AN3935NFHP	IC
IC501	M52353VP	IC
IC502	VC2076MP-XE	IC
IC503	TL8809F	IC
IC504	M52062AFP	IC
IC508	TC7WU04FU	IC
IC801	AN3348FBP	IC
Q1	DTA114WU	TRANSISTOR
Q8	DTC144EE	TRANSISTOR
Q11	DTC144EE	TRANSISTOR
Q12	DTA114EE	TRANSISTOR
Q203	DTC144EE	TRANSISTOR
Q204	DTC144EE	TRANSISTOR
Q205	2SA1774(Q)	TRANSISTOR
Q206	DTA144EE	TRANSISTOR
Q207	DTC144EE	TRANSISTOR
Q208	2SC4617(RS)	TRANSISTOR
Q209	2SA1774(RS)	TRANSISTOR
Q210	2SA1576(RS)	TRANSISTOR
Q301	2SC4097(QR)	TRANSISTOR
Q302	DTC144EE	TRANSISTOR
Q303	DTA143EE	TRANSISTOR
Q304	DTC144EE	TRANSISTOR
Q305	DTA143EE	TRANSISTOR
Q308	UMW1	TRANSISTOR
Q309	DTA143EE	TRANSISTOR
Q310	DTC124EE	TRANSISTOR
Q404	DTC144EE	TRANSISTOR
Q407	UMW1	TRANSISTOR
Q451	2SA1774(QRS)	TRANSISTOR
Q501	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q503	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q504	XP4312	TRANSISTOR
Q506	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q507	XP1213	TRANSISTOR
Q509	2SA1774(RS)	TRANSISTOR
Q510	UN9113	TRANSISTOR
	or DTA144EE	TRANSISTOR

#△ REF No. PART No. PART NAME, DESCRIPTION

Q511	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q512	2SA1774(RS)	TRANSISTOR
Q513	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q514	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q516	XP1213	TRANSISTOR
Q517	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q518	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q519	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q520	2SA1774(RS)	TRANSISTOR
Q522	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q523	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q525	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q527	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q528	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q529	XP1213	TRANSISTOR
Q530	XP1213	TRANSISTOR
Q531	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q533	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q534	UMW1	TRANSISTOR
Q535	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q536	RU201	TRANSISTOR
Q540	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q544	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q545	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q546	RU201	TRANSISTOR
Q551	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q553	FMQ1	TRANSISTOR
Q554	FMQ1	TRANSISTOR
Q561	RU201	TRANSISTOR
Q562	RU201	TRANSISTOR
Q564	2SA1774(RS)	TRANSISTOR
Q566	2SA1774(RS)	TRANSISTOR
Q571	2SA1577(PQR)	TRANSISTOR
Q572	2SA1577(PQR)	TRANSISTOR
Q573	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q574	UN9113	TRANSISTOR
	or DTA144EE	TRANSISTOR
Q575	2SA1577(PQR)	TRANSISTOR
Q576	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q577	2SA1577(PQR)	TRANSISTOR
Q578	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR

#△ REF No. PART No. PART NAME, DESCRIPTION

Q579	UN9113	TRANSISTOR
	or DTA144EE	TRANSISTOR
Q580	UN9113	TRANSISTOR
	or DTA144EE	TRANSISTOR
Q581	2SA1577(PQR)	TRANSISTOR
Q585	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q586	2SA1577(PQR)	TRANSISTOR
Q602	2SC4617(RS)	TRANSISTOR
Q603	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q604	2SA1774(RS)	TRANSISTOR
Q605	2SC4617(RS)	TRANSISTOR
Q608	2SC4617(RS)	TRANSISTOR
Q609	2SC4617(RS)	TRANSISTOR
Q610	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q611	2SA1774(RS)	TRANSISTOR
Q612	2SC4617(RS)	TRANSISTOR
Q615	UN9213	TRANSISTOR
Q616	UMX1	TRANSISTOR
Q617	2SC4617(RS)	TRANSISTOR
Q618	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q619	2SC4617(RS)	TRANSISTOR
Q620	2SC4617(RS)	TRANSISTOR
Q621	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q622	2SC4617(RS)	TRANSISTOR
Q623	2SA1774(RS)	TRANSISTOR
Q624	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q625	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q630	2SC4617(RS)	TRANSISTOR
Q641	2SC4617(RS)	TRANSISTOR
Q642	2SA1774(RS)	TRANSISTOR
Q643	2SC4617(RS)	TRANSISTOR
Q644	2SC4617(RS)	TRANSISTOR
Q645	2SC4617(RS)	TRANSISTOR
Q646	2SA1774(RS)	TRANSISTOR
Q649	2SC4617(RS)	TRANSISTOR
Q650	UMW1	TRANSISTOR
Q801	2SC4774(RS)	TRANSISTOR
Q802	2SC4774(RS)	TRANSISTOR
Q803	2SC4774(RS)	TRANSISTOR
Q804	2SC4774(RS)	TRANSISTOR
Q805	2SC4617(QRS)	TRANSISTOR
Q806	2SC4617(QRS)	TRANSISTOR
Q807	2SC4617(QRS)	TRANSISTOR
Q808	2SC4617(QRS)	TRANSISTOR
Q809	RU201	TRANSISTOR
Q810	RU201	TRANSISTOR
Q811	UN9213	TRANSISTOR
	or DTC144EE	TRANSISTOR
Q901	2SA1577(QR)	TRANSISTOR
Q902	2SC4617(R)	TRANSISTOR
Q903	2SC4617(R)	TRANSISTOR
Q904	2SC4617(RS)	TRANSISTOR
Q905	DTA124EE	TRANSISTOR
Q906	DTC144EE	TRANSISTOR
D1	FC805	DIODE

#△ REF No. PART No. PART NAME, DESCRIPTION

D5	MA8068	DIODE
D6	SB05-03Q-X	DIODE
D7	SIM-1251ST-W	LE DIODE
D13	DAN222	DIODE
△ D14	MA704WA	DIODE
D15	DAN222	DIODE
D16	DAP222	DIODE
D17	DAP222	DIODE
D18	DAP222	DIODE
△ D20	MA704	DIODE
D21	DAP222	DIODE
D22	DAP222	DIODE
D26	MA716	DIODE
D31	DT26.8	ZENER DIODE
D201	DAP222	DIODE
D204	DA221	DIODE
D205	DAP222	DIODE
D281	DAN222	DIODE
D301	IMN10	DIODE
D451	DAN222	DIODE
D452	DA221	DIODE
D505	MA132WK	DIODE
D506	MA132WK	DIODE
D509	MA132WK	DIODE
D515	MA132WK	DIODE
D521	MA132WK	DIODE
D525	MA132WK	DIODE
D526	MA132WK	DIODE
D531	MA132WK	DIODE
D532	MA132WK	DIODE
D541	MA132WK	DIODE
D544	MA132WA	DIODE
D801	MA132WA	DIODE
D802	MA132WA	DIODE
D803	MA132WA	DIODE
D804	MA132WA	DIODE
D901	DAN222	DIODE
R1	NRSA63J-0R0N	RESISTOR
		0Ω, 1/16W
R5	NRSA63J-103N	RESISTOR
		10KΩ, 1/16W
R6	NRSA63J-103N	RESISTOR
		10KΩ, 1/16W
R8	NRSA63J-105N	RESISTOR
		1MΩ, 1/16W
R9	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R11	NRSA63J-0R0N	RESISTOR
		0Ω, 1/16W
R14	NRSA63J-472N	RESISTOR
		4.7KΩ, 1/16W
R15	NRSA63J-223N	RESISTOR
		22KΩ, 1/16W
R18	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R19	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R20	NRSA63J-104N	RESISTOR
		100KΩ, 1/16W
R22	NRSA63J-104N	RESISTOR
		100KΩ, 1/16W
R23	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R25	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R27	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R29	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R31	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R32	NRSA63J-104N	RESISTOR
		100KΩ, 1/16W
R35	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R37	NRSA63J-102N	RESISTOR
		1KΩ, 1/16W
R38	NRSA63J-103N	RESISTOR
		10KΩ, 1/16W
R39	NRSA63J-103N	RESISTOR
		10KΩ, 1/16W
R40	NRSA63J-103N	RESISTOR
		10KΩ, 1/16W
R41	NRSA63J-473N	RESISTOR
		47KΩ, 1/16W
R43	NRSA63J-473N	RESISTOR
		47KΩ, 1/16W

≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION
R568	NRSA63J-473N	RESISTOR 47KΩ, 1/16W	R654	NRSA63J-333N	RESISTOR 33KΩ, 1/16W	R740	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R835	NRSA63J-821N	RESISTOR 820Ω, 1/16W
R569	NRSA63J-473N	RESISTOR 47KΩ, 1/16W	R655	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	R741	NRSA63J-681N	RESISTOR 680Ω, 1/16W	R836	NRSA63J-391N	RESISTOR 390Ω, 1/16W
R570	NRSA63J-683N	RESISTOR 68KΩ, 1/16W	R656	NRSA63J-751N	RESISTOR 750Ω, 1/16W	R742	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R837	NRSA63J-100N	RESISTOR 10Ω, 1/16W
R571	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W	R657	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	R744	NRSA63J-361N	RESISTOR 360Ω, 1/16W	R838	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R572	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R658	NRSA63J-223N	RESISTOR 22KΩ, 1/16W	R745	NRSA63J-223N	RESISTOR 22KΩ, 1/16W	R844	NRSA63J-391N	RESISTOR 390Ω, 1/16W
R573	NRSA63J-184N	RESISTOR 180KΩ, 1/16W	R659	NRSA63J-182N	RESISTOR 1.8KΩ, 1/16W	R746	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W	R845	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R574	NRSA63J-562N	RESISTOR 560Ω, 1/16W	R661	NRSA63J-221N	RESISTOR 220Ω, 1/16W	R747	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R847	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R575	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R662	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R748	NRSA63J-121N	RESISTOR 120Ω, 1/16W	R850	NRSA63J-100N	RESISTOR 10Ω, 1/16W
R576	NRSA63J-681N	RESISTOR 680Ω, 1/16W	R672	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R751	NRSA63J-511N	RESISTOR 510Ω, 1/16W	R852	NRSA63J-100N	RESISTOR 10Ω, 1/16W
R577	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R673	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R752	NRSA63J-162N	RESISTOR 1.6KΩ, 1/16W	R853	NRSA63J-391N	RESISTOR 390Ω, 1/16W
R578	NRSA63J-153N	RESISTOR 15KΩ, 1/16W	R674	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R753	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R856	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R579	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R675	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R754	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R858	NRSA63J-821N	RESISTOR 820Ω, 1/16W
R581	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W	R676	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R755	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W	R859	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W
R585	NRSA63J-104N	RESISTOR 100KΩ, 1/16W	R677	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R756	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R860	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W
R586	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R679	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R757	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R861	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W
R589	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R680	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R759	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W	R862	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R590	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R681	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R760	NRSA63J-182N	RESISTOR 1.8KΩ, 1/16W	R863	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W
R591	NRSA63J-331N	RESISTOR 330Ω, 1/16W	R682	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R761	NRSA63J-123N	RESISTOR 12KΩ, 1/16W	R864	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W
R592	NRSA63J-331N	RESISTOR 330Ω, 1/16W	R684	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R762	NRSA63J-682N	RESISTOR 6.8KΩ, 1/16W	R865	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R593	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R685	NRSA63J-682N	RESISTOR 6.8KΩ, 1/16W	R763	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R866	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R594	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R686	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R764	NRSA63J-153N	RESISTOR 15KΩ, 1/16W	R901	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R596	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R687	NRSA63J-682N	RESISTOR 6.8KΩ, 1/16W	R765	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W	R902	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W
R597	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R688	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R766	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R903	NRSA63J-393N	RESISTOR 39KΩ, 1/16W
R598	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R689	NRSA63J-473N	RESISTOR 47KΩ, 1/16W	R768	NRSA63J-471N	RESISTOR 470Ω, 1/16W	R904	NRSA63J-393N	RESISTOR 39KΩ, 1/16W
R600	NRSA63J-123N	RESISTOR 12KΩ, 1/16W	R691	NRSA63J-472N	RESISTOR 4.7KΩ, 1/16W	R769	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R905	NRSA63J-5R6N	RESISTOR 5.6Ω, 1/16W
R601	NRSA63J-223N	RESISTOR 22KΩ, 1/16W	R692	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R770	NRSA63J-271N	RESISTOR 270Ω, 1/16W	R906	NRSA63J-5R6N	RESISTOR 5.6Ω, 1/16W
R602	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R693	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R771	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R907	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R603	NRSA63J-123N	RESISTOR 12KΩ, 1/16W	R694	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R784	NRSA63J-101N	RESISTOR 100Ω, 1/16W	R908	NRSA63J-153N	RESISTOR 15KΩ, 1/16W
R604	NRSA63J-223N	RESISTOR 22KΩ, 1/16W	R695	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R788	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R951	NVP1202-222N	V RESISTOR,SUB EMPHA INPUT LEVEL
R605	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R696	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R789	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R953	NVP1202-473N	V RESISTOR,N WHITE CLIP
R606	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R697	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R790	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R954	NVP1202-223N	V RESISTOR,S WHITE CLIP
R607	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R698	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R791	NRSA63J-823N	RESISTOR 82KΩ, 1/16W	R955	NVP1202-103N	V RESISTOR,S DARK CLIP
R608	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R703	NRSA63J-301N	RESISTOR 300Ω, 1/16W	R792	NRSA63J-333N	RESISTOR 33KΩ, 1/16W	R956	NVP1202-472N	V RESISTOR,N DARK CLIP
R609	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R704	NRSA63J-681N	RESISTOR 680Ω, 1/16W	R793	NRSA63J-331N	RESISTOR 330Ω, 1/16W	R957	NVP1202-103N	V RESISTOR,S DEVIATION
R610	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R705	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R794	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R958	NVP1202-103N	V RESISTOR,N DEVIATION
R611	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R706	NRSA63J-182N	RESISTOR 1.8KΩ, 1/16W	R795	NRSA63J-271N	RESISTOR 270Ω, 1/16W	R959	NVP1202-473N	V RESISTOR,S CARRIER
R612	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R708	NRSA63J-181N	RESISTOR 180Ω, 1/16W	R796	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R960	NVP1202-223N	V RESISTOR,N CARRIER
R613	NRSA63J-223N	RESISTOR 22KΩ, 1/16W	R709	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W	R797	NRSA63J-472N	RESISTOR 4.7KΩ, 1/16W	R961	NVP1202-223N	V RESISTOR,PIX
R615	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R710	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R799	ERSL22J-272Y	THERMISTOR 2.7KΩ	R963	NVP1202-103N	V RESISTOR,N PB Y LEVEL
R616	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R712	NRSA63J-751N	RESISTOR 750Ω, 1/16W	R800	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R964	NVP1202-103N	V RESISTOR,S PB Y LEVEL
R621	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W	R713	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R801	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R965	NVP1202-222N	V RESISTOR,YNR INPUT LEVEL
R626	NRSA63J-153N	RESISTOR 15KΩ, 1/16W	R714	NRSA63J-121N	RESISTOR 120Ω, 1/16W	R802	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W	R966	NVP1202-222N	V RESISTOR,S VIDEO EQ
R627	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	R715	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R804	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W	R968	NVP1202-103N	V RESISTOR,N VIDEO EQ
R628	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W	R716	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R805	NRSA63J-361N	RESISTOR 360Ω, 1/16W	R971	NVP1203-334N	V RESISTOR,PILOT BURST LEVEL
R629	NRSA63J-182N	RESISTOR 1.8KΩ, 1/16W	R721	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R807	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R973	NVP1202-222N	V RESISTOR,S REC COLOR LEVEL
R630	NRSA63J-563N	RESISTOR 56KΩ, 1/16W	R722	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R808	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	R974	NVP1202-222N	V RESISTOR,N REC COLOR LEVEL
R634	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R723	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R809	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R976	NVP1202-222N	V RESISTOR,EE V LEVEL
R636	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W	R724	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R810	NRSA63J-100N	RESISTOR 10Ω, 1/16W	R978	NVP1202-222N	V RESISTOR,S EE Y LEVEL
R637	NRSA63J-271N	RESISTOR 270Ω, 1/16W	R725	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R811	NRSA63J-100N	RESISTOR 10Ω, 1/16W	C6	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R638	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R726	NRSA63J-391N	RESISTOR 390Ω, 1/16W	R812	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	C7	NCT06CH-270A	CAPACITOR 27pF,50V
R639	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R727	NRSA63J-751N	RESISTOR 750Ω, 1/16W	R814	NRSA63J-361N	RESISTOR 360Ω, 1/16W	C8	NCT06CH-270A	CAPACITOR 27pF,50V
R640	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R728	NRSA63J-681N	RESISTOR 680Ω, 1/16W	R815	NRSA63J-821N	RESISTOR 820Ω, 1/16W	C9	NCT06CH-8R0A	CAPACITOR 8pF,50V
R641	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R730	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W	R816	NRSA63J-100N	RESISTOR 10Ω, 1/16W	C10	NCT06CH-180A	CAPACITOR 18pF,50V
R642	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R731	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R817	NRSA63J-100N	RESISTOR 10Ω, 1/16W	C12	NCTB31EK-472A	CAPACITOR 0.0047μF,25V
R644	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R732	NRSA63J-121N	RESISTOR 120Ω, 1/16W	R818	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	C13	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R645	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W	R733	NRSA63J-821N	RESISTOR 820Ω, 1/16W	R820	NRSA63J-361N	RESISTOR 360Ω, 1/16W	C14	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R648	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	R734	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R828	NRSA63J-391N	RESISTOR 390Ω, 1/16W	C15	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R649	NRSA63J-561N	RESISTOR 560Ω, 1/16W	R735	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R829	NRSA63J-100N	RESISTOR 10Ω, 1/16W	C16	NCS31HJ-300A	CAPACITOR 30pF,50V
R650	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	R736	NRSA63J-103N	RESISTOR 10KΩ, 1/16W	R830	NRSA63J-272N	RESISTOR 2.7KΩ, 1/16W	C17	NCS31HJ-200A	CAPACITOR 20pF,50V
R651	NRSA63J-162N	RESISTOR 1.6KΩ, 1/16W	R737	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R831	NRSA63J-821N	RESISTOR 820Ω, 1/16W	C19	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R652	NRSA63J-102N	RESISTOR 1KΩ, 1/16W	R738	NRSA63J-273N	RESISTOR 27KΩ, 1/16W	R832	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W	C22	NCF31CZ-104A	CAPACITOR 0.1μF,16V
R653	NRSA63J-333N	RESISTOR 33KΩ, 1/16W	R739	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W	R833	NRSA63J-361N	RESISTOR 360Ω, 1/16W	C23	NCF31CZ-104A	CAPACITOR 0.1μF,16V

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C24	NCB31CK-333A	CAPACITOR	0.033μF,16V	C240	QCYA1EK-103	CAPACITOR	0.01μF,25V	C414	NCB31EK-103A	CAPACITOR	0.01μF,25V
C25	NCB31CK-333A	CAPACITOR	0.033μF,16V	C241	QCFA1CZ-105	CAPACITOR	1μF,16V	C415	YU40688-476N	E CAPACITOR	47μF,5.5V
C27	NCS31HJ-101A	CAPACITOR	100pF,50V	C259	YU40688-476N	E CAPACITOR	47μF,5.5V	C416	YU40688-476N	E CAPACITOR	47μF,5.5V
C28	NCS31HJ-101A	CAPACITOR	100pF,50V	C260	NCB31HK-102A	CAPACITOR	0.001μF,50V	C417	NEA31CM-106N	E CAPACITOR	10μF,16V
C29	NCS31HJ-101A	CAPACITOR	100pF,50V	C270	NCB31HK-102A	CAPACITOR	0.001μF,50V	C418	NEA31CM-106N	E CAPACITOR	10μF,16V
C30	NCS31HJ-101A	CAPACITOR	100pF,50V	C281	NEE21AM-106RY	E CAPACITOR	10μF,10V	C419	NCB31EK-103A	CAPACITOR	0.01μF,25V
C32	NCS31HJ-101A	CAPACITOR	100pF,50V	C282	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C420	NCB31EK-103A	CAPACITOR	0.01μF,25V
C33	NCS31HJ-101A	CAPACITOR	100pF,50V	C283	NCB31HK-331A	CAPACITOR	330pF,50V	C423	NEA31HM-105NZ	E CAPACITOR	1μF,50V
C34	NCB31EK-103A	CAPACITOR	0.01μF,25V	C285	NCB31EK-103A	CAPACITOR	0.01μF,25V	C424	NEA31HM-105NZ	E CAPACITOR	1μF,50V
C36	NCB31EK-103A	CAPACITOR	0.01μF,25V	C286	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C425	NEA31EM-475NZ	E CAPACITOR	4.7μF,25V
C37	NCB31EK-103A	CAPACITOR	0.01μF,25V	C288	QCF81CZ-225	CAPACITOR	2.2μF,16V	C426	NEA31EM-475NZ	E CAPACITOR	4.7μF,25V
C38	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C289	QCF81CZ-225	CAPACITOR	2.2μF,16V	C451	NCB31EK-103A	CAPACITOR	0.01μF,25V
C39	NCB31CK-333A	CAPACITOR	0.033μF,16V	C290	QCF81CZ-225	CAPACITOR	2.2μF,16V	C452	NCB31EK-103A	CAPACITOR	0.01μF,25V
C40	NCS31HJ-101A	CAPACITOR	100pF,50V	C294	NCR21CK-473A	CAPACITOR	0.047μF,16V	C453	YU40688-476N	E CAPACITOR	47μF,5.5V
C41	NCS31HJ-101A	CAPACITOR	100pF,50V	C295	NEA31VM-225N	E CAPACITOR	2.2μF,35V	C454	NCF31CZ-104A	CAPACITOR	0.1μF,16V
C42	NCS31HJ-101A	CAPACITOR	100pF,50V	C296	NCB31EK-103A	CAPACITOR	0.01μF,25V	C455	NCB31EK-103A	CAPACITOR	0.01μF,25V
C43	NCS31HJ-101A	CAPACITOR	100pF,50V	C297	NCB31HK-681A	CAPACITOR	680pF,50V	C457	NCS31HJ-271A	CAPACITOR	270pF,50V
C44	NCS31HJ-101A	CAPACITOR	100pF,50V	C298	NCB31EK-332A	CAPACITOR	0.0033μF,25V	C458	QCYA1EK-104	CAPACITOR	0.1μF,25V
C47	YU40688-476N	E CAPACITOR	47μF,5.5V	C299	NEE21EM-474RY	E CAPACITOR	0.47μF,25V	C461	YU40688-476N	E CAPACITOR	47μF,5.5V
C48	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C301	NCB31HK-102A	CAPACITOR	0.001μF,50V	C462	YU40688-336N	E CAPACITOR	33μF,10V
C49	NEA31EM-475NZ	E CAPACITOR	4.7μF,25V	C302	NFV21CJ-273AY	F CAPACITOR	0.027μF,16V	C464	NEA31CM-106N	E CAPACITOR	10μF,16V
C50	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C303	NCS31HJ-561A	CAPACITOR	560pF,50V	C465	NEA31EM-475NZ	E CAPACITOR	4.7μF,25V
C56	NCB31EK-332A	CAPACITOR	0.0033μF,25V	C304	NCB31EK-822A	CAPACITOR	0.0082μF,25V	C467	YU40688-476N	E CAPACITOR	47μF,5.5V
C57	NCB31EK-332A	CAPACITOR	0.0033μF,25V	C305	YU41415-J336CW	E CAPACITOR	33μF,6.3V	C468	NEA31EM-475NZ	E CAPACITOR	4.7μF,25V
C58	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C307	NEA31CM-106N	E CAPACITOR	10μF,16V	C469	NCF31CZ-104A	CAPACITOR	0.1μF,16V
C59	YU41415-J106AW	E CAPACITOR	10μF,6.3V	C308	YU41415-J336CW	E CAPACITOR	33μF,6.3V	C501	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C60	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C309	NEE21AM-105RY	E CAPACITOR	1μF,10V	C502	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V
C61	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C310	NCS31HJ-221A	CAPACITOR	220pF,50V	C503	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V
C62	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C311	NCS31HJ-681A	CAPACITOR	680pF,50V	C504	NCB31EK-103A	CAPACITOR	0.01μF,25V
C63	NEH11CM-476NP	E CAPACITOR	47μF,16V	C312	NCB31HK-332A	CAPACITOR	0.0033μF,50V	C505	YU41415-J106AW	E CAPACITOR	10μF,6.3V
C64	NEE21AM-335RY	E CAPACITOR	3.3μF,10V	C313	NCB31EK-103A	CAPACITOR	0.01μF,25V	C507	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C66	NCS31HJ-1R0A	CAPACITOR	1pF,50V	C314	NCS31HJ-331A	CAPACITOR	330pF,50V	C508	NCT08CH-301A	CAPACITOR	300pF,50V
C67	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C315	QCFA1CZ-105	CAPACITOR	1μF,16V	C509	NCT08CH-301A	CAPACITOR	300pF,50V
C201	NCB31EK-103A	CAPACITOR	0.01μF,25V	C316	NCB31HK-102A	CAPACITOR	0.001μF,50V	C510	NCT08CH-221A	CAPACITOR	220pF,50V
C202	NCF31CZ-104A	CAPACITOR	0.1μF,16V	C317	NCB31HK-332A	CAPACITOR	0.0033μF,50V	C511	NCT08CH-820A	CAPACITOR	82pF,50V
C203	NCB31EK-103A	CAPACITOR	0.01μF,25V	C318	QCFA1CZ-105	CAPACITOR	1μF,16V	C512	NCT08CH-271A	CAPACITOR	270pF,50V
C204	NCB31EK-103A	CAPACITOR	0.01μF,25V	C319	YU40688-336N	E CAPACITOR	33μF,10V	C513	NCS31HJ-181A	CAPACITOR	180pF,50V
C205	NCB31EK-103A	CAPACITOR	0.01μF,25V	C320	YU40688-336N	E CAPACITOR	33μF,10V	C514	NCS31HJ-470A	CAPACITOR	47pF,50V
C207	NCR21CK-473A	CAPACITOR	0.047μF,16V	C321	NEN11HM-105NZ	E CAPACITOR	1μF,50V	C515	NCT08CH-301A	CAPACITOR	300pF,50V
C208	NCB31HK-102A	CAPACITOR	0.001μF,50V	C322	NCS31HJ-561A	CAPACITOR	560pF,50V	C516	NCT08CH-271A	CAPACITOR	270pF,50V
C209	NEA31CM-106N	E CAPACITOR	10μF,16V	C323	QCFA1CZ-105	CAPACITOR	1μF,16V	C518	NEE20GM-226RY	E CAPACITOR	22μF,4.0V
C210	NCB31EK-103A	CAPACITOR	0.01μF,25V	C324	NEA30GM-226N	E CAPACITOR	22μF,4.0V	C528	NCB31EK-103A	CAPACITOR	0.01μF,25V
C215	QCFA1EZ-104	CAPACITOR	0.1μF,25V	C325	NCB31HK-272A	CAPACITOR	0.0027μF,50V	C529	NCB31EK-103A	CAPACITOR	0.01μF,25V
C216	NEA31CM-106N	E CAPACITOR	10μF,16V	C326	NCB31EK-103A	CAPACITOR	0.01μF,25V	C530	YU41415-J106AW	E CAPACITOR	10μF,6.3V
C217	NCS31HJ-101A	CAPACITOR	100pF,50V	C327	NCB31EK-103A	CAPACITOR	0.01μF,25V	C531	QCYA1EK-104	CAPACITOR	0.1μF,25V
C218	YU40688-476N	E CAPACITOR	47μF,5.5V	C330	QCFA1CZ-105	CAPACITOR	1μF,16V	C532	NCS31HJ-820A	CAPACITOR	82pF,50V
C219	NEA31HM-105NZ	E CAPACITOR	1μF,50V	C338	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V	C533	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C220	QCFA1CZ-105	CAPACITOR	1μF,16V	C339	YU40688-336N	E CAPACITOR	33μF,10V	C534	NCS31HJ-120A	CAPACITOR	12pF,50V
C221	NEA31CM-106N	E CAPACITOR	10μF,16V	C340	NCB31EK-223A	CAPACITOR	0.022μF,25V	C535	NCF31CZ-104A	CAPACITOR	0.1μF,16V
C222	NCB31EK-103A	CAPACITOR	0.01μF,25V	C401	NCB31EK-103A	CAPACITOR	0.01μF,25V	C537	NCS31HJ-470A	CAPACITOR	47pF,50V
C225	NCT06CH-101A	CAPACITOR	100pF,50V	C402	NCB31EK-103A	CAPACITOR	0.01μF,25V	C538	NCB31HJ-561A	CAPACITOR	560pF,50V
C226	NEE21AM-106RY	E CAPACITOR	10μF,10V	C403	NCB31EK-103A	CAPACITOR	0.01μF,25V	C539	NCS31HJ-560A	CAPACITOR	56pF,50V
C230	QCFA1EZ-104	CAPACITOR	0.1μF,25V	C404	NCB31EK-103A	CAPACITOR	0.01μF,25V	C541	NCB31EK-103A	CAPACITOR	0.01μF,25V
C231	QCFA1EZ-104	CAPACITOR	0.1μF,25V	C405	NEA30GM-226N	E CAPACITOR	22μF,4.0V	C542	NCB31EK-103A	CAPACITOR	0.01μF,25V
C232	NCT06CH-101A	CAPACITOR	100pF,50V	C406	NEA30GM-226N	E CAPACITOR	22μF,4.0V	C545	NCS31HJ-391A	CAPACITOR	390pF,50V
C233	QCFA1CZ-105	CAPACITOR	1μF,16V	C407	NCB31HK-222A	CAPACITOR	0.0022μF,50V	C547	NEE21AM-105RY	E CAPACITOR	1μF,10V
C234	NCB31EK-223A	CAPACITOR	0.022μF,25V	C408	NCB31HK-222A	CAPACITOR	0.0022μF,50V	C548	NEE21AM-105RY	E CAPACITOR	1μF,10V
C235	NCB31EK-223A	CAPACITOR	0.022μF,25V	C409	NEA31CM-106N	E CAPACITOR	10μF,16V	C549	QCYA1EK-104	CAPACITOR	0.1μF,25V
C236	NCB31EK-223A	CAPACITOR	0.022μF,25V	C410	NEA31CM-106N	E CAPACITOR	10μF,16V	C550	YU41415-J106AW	E CAPACITOR	10μF,6.3V
C237	QCFA1CZ-105	CAPACITOR	1μF,16V	C411	NEA31HM-105NZ	E CAPACITOR	1μF,50V	C551	QCYA1EK-104	CAPACITOR	0.1μF,25V
C238	QCFA1CZ-105	CAPACITOR	1μF,16V	C412	NEA31HM-105NZ	E CAPACITOR	1μF,50V	C552	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C239	QCFA1CZ-105	CAPACITOR	1μF,16V	C413	NCB31EK-103A	CAPACITOR	0.01μF,25V	C553	YU41415-J106AW	E CAPACITOR	10μF,6.3V
C555	NEE20GM-226RY	E CAPACITOR	22μF,4.0V	C556	NEE21EM-474RY	E CAPACITOR	0.47μF,25V	C557	NEE20GM-226RY	E CAPACITOR	22μF,4.0V
C558	YU41415-J106AW	E CAPACITOR	10μF,6.3V	C559	NCB31EK-103A	CAPACITOR	0.01μF,25V	C560	NEE20GM-226RY	E CAPACITOR	22μF,4.0V
C561	QCYA1EK-104	CAPACITOR	0.1μF,25V	C562	YU41415-J106AW	E CAPACITOR	10μF	C563	QCYA1EK-104	CAPACITOR	0.1μF,25V
C564	YU41415-J106AW	E CAPACITOR	10μF	C565	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C566	NEE21EM-474RY	E CAPACITOR	0.47μF,25V
C567	NEE21EM-474RY	E CAPACITOR	0.47μF,25V	C568	NEE21EM-474RY	E CAPACITOR	0.47μF,25V	C569	NEE21EM-474RY	E CAPACITOR	0.47μF,25V
C571	NCS31HJ-390A	CAPACITOR	39pF,50V	C572	NCS31HJ-820A	CAPACITOR	82pF,50V	C573	NCS31HJ-220A	CAPACITOR	22pF,50V
C574	NCS31HJ-220A	CAPACITOR	22pF,50V	C575	NCS31HJ-391A	CAPACITOR	390pF,50V	C576	NCS31HJ-181A	CAPACITOR	180pF,50V
C577	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V	C578	NCS31HJ-561A	CAPACITOR	560pF,50V	C579	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V
C581	NCB31EK-103A	CAPACITOR	0.01μF,25V	C582	NCB31HJ-100A	CAPACITOR	10pF,50V	C583	NCS31HJ-561A	CAPACITOR	560pF,50V
C584	NCB31EK-103A	CAPACITOR	0.01μF,25V	C585	YU41582-200X	TRIMMER CAPACITOR,PILOT BURST PHASE	20pF	C586	NCB31EK-103A	CAPACITOR	0.01μF,25V
C587	NCB31EK-103A	CAPACITOR	0.01μF,25V	C588	NCB31EK-103A	CAPACITOR	0.01μF,25V	C589	NCB31EK-103A	CAPACITOR	0.01μF,25V
C591	NCB31EK-103A	CAPACITOR	0.01μF,25V	C592	NCB31EK-103A	CAPACITOR	0.01μF,25V	C593	NCB31HJ-681A	CAPACITOR	680pF,50V
C594	NCB31EK-103A	CAPACITOR	0.01μF,25V	C595	NCB31HJ-681A	CAPACITOR	680pF,50V	C596	NCB31EK-103A	CAPACITOR	0.01μF,25V
C597	NCB31EK-103A	CAPACITOR	0.01μF,25V	C598	NCB31EK-103A	CAPACITOR	0.01μF,25V	C599	NCB31EK-103A	CAPACITOR	0.01μF,25V
C600	NCB31HJ-681A	CAPACITOR	680pF,50V	C601	NCB31EK-103A	CAPACITOR	0.01μF,25V	C602	NCB31EK-103A	CAPACITOR	0.01μF,25V
C603	YU41415-J106AW	E CAPACITOR	10μF	C604	NCB31EK-103A	CAPACITOR	0.01μF,25V	C605	NCB31EK-103A	CAPACITOR	0.01μF,25V
C606	NCB31EK-103A	CAPACITOR	0.01μF,25V	C607	QCYA1EK-104	CAPACITOR	0.1μF,25V	C608	NCB31CK-223A	CAPACITOR	0.022μF,16V
C609	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V	C610	NCB31EK-103A	CAPACITOR	0.01μF,25V	C611	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C612	NCB31EK-103A	CAPACITOR	0.01μF,25V	C613	NCB31EK-103A	CAPACITOR	0.01μF,25V	C614	NCB31HJ-471A	CAPACITOR	470pF,50V
C615	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V	C616	NEE20JM-225RY	E CAPACITOR	2.2μF,6.3V	C617	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C618	NCB31EK-103A	CAPACITOR	0.01μF,25V	C619	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V	C620	NCB31CK-223A	CAPACITOR	0.022μF,16V
C621	YU41415-J106AW	E CAPACITOR	10μF,6.3V	C622	QCYA1EK-104	CAPACITOR	0.1μF,25V	C623	NEE20JM-475RY	E CAPACITOR	4.7μF,6.3V
C624	NCB31HJ-101A	CAPACITOR	100pF,50V	C625	YU41582-200X	TRIMMER CAPACITOR,VXO	20pF	C626	NCB31HJ-681A	CAPACITOR	680pF,50V
C627	NCB31EK-103A	CAPACITOR	0.01μF,25V	C628	NCB31HJ-390A	CAPACITOR	39pF,50V	C629	NCB31HJ-471A	CAPACITOR	470pF,50V
C632	NCB31EK-103A	CAPACITOR	0.01μF,25V	C633	NCB31HJ-101A	CAPACITOR	100pF,50V	C634	NCB31HJ-471A	CAPACITOR	470pF,50V
C635	NCB31EK-										

≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION	≠△ REF No.	PART No.	PART NAME, DESCRIPTION
C634	NCB31EK-103A	CAPACITOR	C732	NCS31HJ-390A	CAPACITOR	C872	NCB31EK-103A	CAPACITOR	L585	YU41135-470	COIL
C635	QCYA1EK-104	CAPACITOR	C733	NCS31HJ-221A	CAPACITOR	C873	QCYA1EK-104	CAPACITOR	L601	YU41135-470	COIL
C637	QCYA1EK-104	CAPACITOR	C735	YU41415-J106AW	E CAPACITOR	C874	NCB31EK-103A	CAPACITOR	L802	YU41135-470	COIL
C638	QCYA1EK-104	CAPACITOR	C736	NCB31EK-103A	CAPACITOR	C875	NCB31EK-103A	CAPACITOR	L803	YU41135-470	COIL
C639	YU41582-200X	TRIMMER CAPACITOR,320FH VCO	C801	NEE21AM-105RY	E CAPACITOR	C876	NCB31EK-103A	CAPACITOR	L804	YU41135-470	COIL
C641	NCB31EK-103A	CAPACITOR	C803	NCF31CZ-104A	CAPACITOR	C877	NCB31EK-103A	CAPACITOR	L805	YU41135-470	COIL
C643	NCB31HK-152A	CAPACITOR	C805	QCYA1CZ-105	CAPACITOR	C878	YU41415-J106AW	E CAPACITOR	L806	YU41135-470	COIL
C645	NCS31HJ-151A	CAPACITOR	C806	NCS31HJ-120A	CAPACITOR	C879	NCB31EK-103A	CAPACITOR	L901	YU41135-470	COIL
C646	NCS31HJ-681A	CAPACITOR	C807	NCB31EK-103A	CAPACITOR	C901	NCT06CH-5R0A	CAPACITOR	△ L902	YU41368	CHIP OSC COIL
C648	NCS31HJ-681A	CAPACITOR	C808	NCB31EK-103A	CAPACITOR	C902	NCF31CZ-104A	CAPACITOR	L903	PU58201-1R2J	COIL
C649	NCS31HJ-101A	CAPACITOR	C809	YU41415-J106AW	E CAPACITOR	C903	NCT08CH-271A	CAPACITOR	EQ501	PELN0646-Z	EQUALIZER
C650	NCS31HJ-391A	CAPACITOR	C810	NCB31EK-103A	CAPACITOR	C904	NCT06CH-181A	CAPACITOR	LPF501	PELN0732-R	LOW PASS FILTER
C651	YU41415-J106AW	E CAPACITOR	C811	NCB31EK-103A	CAPACITOR	C905	NCT06CH-181A	CAPACITOR	LPF502	PELN0645-Z	LOW PASS FILTER
C652	NCB31EK-103A	CAPACITOR	C812	YU41415-J106AW	E CAPACITOR	C906	QCTA1CH-681	CAPACITOR	LPF505	YU40750	REC C LOW PASS FILTER
C653	NCB31EK-103A	CAPACITOR	C815	QCYA1CZ-105	CAPACITOR	L1	YU41134-390J	COIL	BPF501	PELN0733-P	BAND PASS FILTER
C654	YU41415-J106AW	E CAPACITOR	C816	NCF31CZ-104A	CAPACITOR	L201	YU41134-270JY	COIL	BPF502	PELN0730-Z	BAND PASS FILTER
C655	NCS31HJ-220A	CAPACITOR	C817	NCB31EK-103A	CAPACITOR	△ L301	PELN0755-P	OSC TRANSFORMER	BPF503	PELN0689-Z	BAND PASS FILTER
C656	NCS31HJ-270A	CAPACITOR	C818	NCB31EK-103A	CAPACITOR	L302	PELN0415-Z	EQUALIZER	DL501	PEVB0433	2H DELAY LINE
C657	NCS31HJ-270A	CAPACITOR	C821	NCB31EK-103A	CAPACITOR	L303	YU41135-470	COIL	△ X1	PEVB0443	CRYSTAL RESONATOR
C667	NCS31HJ-180A	CAPACITOR	C822	QCYA1CZ-105	CAPACITOR	L304	YU41135-470	COIL	△ X2	YU40141	CRYSTAL RESONATOR
C668	NCS31HJ-270A	CAPACITOR	C823	QCYA1CZ-105	CAPACITOR	L401	YU41191-P	BPF(1.4M)	△ X501	PEVB0467-R	CRYSTAL RESONATOR
C669	NCS31HJ-220A	CAPACITOR	C824	NCS31HJ-120A	CAPACITOR	L402	YU41192-P	BPF(1.8M)	SW1	PESW0605-R	PUSH SWITCH
C671	NCS31HJ-330A	CAPACITOR	C825	NCF31CZ-104A	CAPACITOR	L452	YU41135-470	COIL	SLD1	YQ31335	SHIELD CASE P.L
C672	NCB31EK-103A	CAPACITOR	C826	QCYA1CZ-105	CAPACITOR	L453	YU41135-470	COIL	SLD2	YQ31368	SHIELD CASE P.U
C673	NCS31HJ-270A	CAPACITOR	C828	NCB31EK-103A	CAPACITOR	L454	YU41135-470	COIL	SLD3	YU41973-1-2	SHIELD PLATE
C676	NCB31EK-103A	CAPACITOR	C829	NCS31HJ-120A	CAPACITOR	L501	YU41135-470	COIL	WR1	PEWR0667	FPC
C678	NCS31HJ-330A	CAPACITOR	C830	NCB31EK-103A	CAPACITOR	L504	YU41135-470	COIL	WR2	ML-Y00655B	MIC WIRE 1
C679	NCS31HJ-680A	CAPACITOR	C833	QCYA1CZ-105	CAPACITOR	L505	YU41477-820JY	COIL	WR3	ML-Y00656C	MIC WIRE 2
C680	NCS31HJ-300A	CAPACITOR	C834	NCF31CZ-104A	CAPACITOR	L506	YU41477-150JY	COIL	CN1	PEMC0855-013-R	CONNECTOR
C682	NCS31HJ-820A	CAPACITOR	C835	NCB31EK-103A	CAPACITOR	L508	YU41135-470	COIL	CN2	PEMC0855-014-R	CONNECTOR
C683	NCB31EK-103A	CAPACITOR	C838	NCS31HJ-120A	CAPACITOR	L509	YU41135-470	COIL	CN3	YU41361-30-R	CONNECTOR
C684	NCS31HJ-180A	CAPACITOR	C839	QCYA1CZ-105	CAPACITOR	L510	YU41134-121J	COIL	CN4	YU41361-30-R	CONNECTOR
C686	NCB31EK-103A	CAPACITOR	C841	NCF31CZ-104A	CAPACITOR	L511	YU41477-680JY	COIL	CN5	YU41356-4-R	CONNECTOR
C687	NCB31EK-103A	CAPACITOR	C842	NCB31EK-103A	CAPACITOR	L521	YU41134-330JY	COIL	CN6	PEMC0855-018-R	CONNECTOR
C689	NCS31HJ-181A	CAPACITOR	C843	QCYA1CZ-105	CAPACITOR	L522	YU41135-470	COIL	CN7	PEMC0855-011-R	CONNECTOR
C690	NCB31EK-103A	CAPACITOR	C844	NCB31EK-103A	CAPACITOR	L528	YU41477-220JY	COIL	CN8	PEMC0859-020-R	CONNECTOR
C691	NCB31HK-222A	CAPACITOR	C845	YU41415-J106AW	E CAPACITOR	L530	YU41477-101JY	COIL	CN9	PEMC0880-018-R	CONNECTOR
C693	NCB31CK-333A	CAPACITOR	C846	NCF31CZ-104A	CAPACITOR	L531	YU41477-470JY	COIL	CN10	YU41356-7-R	CONNECTOR
C694	NCS31HJ-100A	CAPACITOR	C847	NCF31CZ-104A	CAPACITOR	L533	YU41477-150JY	COIL	CN11	PEMC0953-012-R	CONNECTOR
C695	NCB31EK-103A	CAPACITOR	C848	NCB31EK-103A	CAPACITOR	L534	YU41477-101JY	COIL	CN13	YU41356-6-R	CONNECTOR
C696	NCS31HJ-820A	CAPACITOR	C849	QCYA1EK-104	CAPACITOR	L551	YU41477-560JY	COIL	CN14	PEMC0910-002-P	CONNECTOR
C697	NCB31EK-103A	CAPACITOR	C850	NCS31HJ-391A	CAPACITOR	L552	YU41477-150JY	COIL			
C698	NCS31HJ-221A	CAPACITOR	C851	QCYA1CZ-105	CAPACITOR	L553	YU41477-390JY	COIL			
C700	NCS31HJ-151A	CAPACITOR	C852	NCB31EK-103A	CAPACITOR	L555	YU41477-8R2KY	COIL			
C701	NCB31EK-103A	CAPACITOR	C853	NCS31HJ-391A	CAPACITOR	L556	YU41477-8R2KY	COIL			
C702	NCB31EK-103A	CAPACITOR	C854	NCB31EK-103A	CAPACITOR	L557	YU41477-101JY	COIL			
C703	NCS31HJ-330A	CAPACITOR	C855	NCF31CZ-104A	CAPACITOR	L558	YU41477-180JY	COIL			
C704	NCS31HJ-330A	CAPACITOR	C856	QCYA1EK-104	CAPACITOR	L559	YU41477-470JY	COIL			
C705	NCB31EK-103A	CAPACITOR	C857	QCYA1CZ-105	CAPACITOR	L561	YU41477-180JY	COIL			
C710	YU41415-J106AW	E CAPACITOR	C858	NCF31CZ-104A	CAPACITOR	L562	YU41477-220JY	COIL			
C711	YU41415-J106AW	E CAPACITOR	C859	QCYA1CZ-105	CAPACITOR	L564	YU41477-100JY	COIL			
C716	NCB31EK-103A	CAPACITOR	C860	NCS31HJ-391A	CAPACITOR	L565	YU41477-680JY	COIL			
C721	NCB31EK-103A	CAPACITOR	C861	QCYA1EK-104	CAPACITOR	L566	YU41134-221JY	COIL			
C722	NCT08CH-390A	CAPACITOR	C862	NCB31EK-103A	CAPACITOR	L567	YU41477-390JY	COIL			
C723	NCT08CH-2R0A	CAPACITOR	C863	NCF31CZ-104A	CAPACITOR	L569	YU41477-150JY	COIL			
C725	QCYA1EK-104	CAPACITOR	C865	NCB31EK-103A	CAPACITOR	L570	YU41134-221JY	COIL			
C726	NEE21EM-474RY	E CAPACITOR	C866	NCS31HJ-391A	CAPACITOR	L574	YU41135-470	COIL			
C727	NEE21EM-474RY	E CAPACITOR	C867	QCYA1CZ-105	CAPACITOR	L575	YU41135-470	COIL			
C728	NEE21CM-105RY	E CAPACITOR	C868	NCF31CZ-104A	CAPACITOR	L581	YU41135-470	COIL			
C729	YU41415-J106AW	E CAPACITOR	C869	NCB31EK-103A	CAPACITOR	L582	YU41134-680JY	COIL			
C730	NCB31EK-103A	CAPACITOR	C870	NCB31HK-822A	CAPACITOR	L583	YU41477-6R8KY	COIL			
C731	NCS31HJ-180A	CAPACITOR	C871	NCB31HK-392A	CAPACITOR	L584	YU41477-120JY	COIL			

#△ REF No.	PART No.	PART NAME, DESCRIPTION
Q11	2SB1202(ST)	TRANSISTOR
Q12	2SB1202(ST)	TRANSISTOR
Q13	DTA144EE	TRANSISTOR
Q14	DTA144EE	TRANSISTOR
Q15	2SC4617(RS)	TRANSISTOR
Q16	2SC4617(RS)	TRANSISTOR
Q101	2SC4617(QRS)	TRANSISTOR
Q102	2SC4617(QRS)	TRANSISTOR
Q103	2SC4617(QRS)	TRANSISTOR
Q104	2SC4617(QRS)	TRANSISTOR
Q105	2SA1774(QRS)	TRANSISTOR
Q106	DTC144EE	TRANSISTOR
Q107	2SC4617(QRS)	TRANSISTOR
Q109	2SC4617(QRS)	TRANSISTOR
Q112	2SA1774(QRS)	TRANSISTOR
Q114	2SA1774(QRS)	TRANSISTOR
Q115	DTC144EE	TRANSISTOR
D2	SB10-05PCP-X	DIODE
D5	SB05-05CP-X	DIODE
D7	MA132WK	DIODE
D8	MA132WK	DIODE
D102	DAN222	DIODE
D105	DA221	DIODE
D106	DA221	DIODE
D107	DA221	DIODE
D108	DA221	DIODE
D111	MA8068	DIODE
D112	MA8068	DIODE
D113	MA8068	DIODE
D114	MA8068	DIODE
D115	MA8068	DIODE
D116	MA8068	DIODE
D117	MA8068	DIODE
D118	MA8068	DIODE
D119	MA8068	DIODE
R1	NRSA63J-681N	RESISTOR 680Ω, 1/16W
R2	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R3	QRSA08J-221YN	RESISTOR 220Ω, 1/10W
R4	QRSA08J-221YN	RESISTOR 220Ω, 1/10W
R5	NRVA63D-153N	RESISTOR 15KΩ, 1/16W
R6	NRVA63D-152N	RESESTOR 1.5KΩ, 1/6W
R7	NRVA63D-182N	RESESTOR 1.8KΩ, 1/6W
R8	NRVA63D-822N	RESISTOR 8.2KΩ, 1/16W
R9	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R10	NRSA63J-471N	RESISTOR 470Ω, 1/16W
R11	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R12	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R13	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W
R14	NRVA63D-222N	RESISTOR 2.2KΩ, 1/16W
R15	NRVA63D-392N	RESISTOR 3.9KΩ, 1/16W
R16	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R17	NRSA63J-471N	RESISTOR 470Ω, 1/16W
R18	NRSA63J-681N	RESISTOR 680Ω, 1/16W
R19	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R20	QRSA08J-221YN	RESISTOR 220Ω, 1/10W
R21	QRSA08J-221YN	RESISTOR 220Ω, 1/10W
R22	NRVA63D-682N	RESISTOR 6.8KΩ, 1/16W
R23	NRVA63D-112N	RESISTOR 1.1KΩ, 1/16W
R25	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R33	NRSA63J-153N	RESISTOR 15KΩ, 1/16W
R34	NRSA63J-153N	RESISTOR 15KΩ, 1/16W
R36	NRSA63J-391N	RESISTOR 390Ω, 1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R39	QRSA08J-431YN	RESISTOR 430Ω, 1/10W
R41	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R42	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R43	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R44	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R45	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R46	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R47	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R48	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R49	NRSA63J-123N	RESISTOR 12KΩ, 1/16W
R50	NRSA63J-123N	RESISTOR 12KΩ, 1/16W
R51	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W
R52	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W
R53	NVP1202-102N	V RESISTOR,V REG 5V
R54	NVP1202-102N	V RESISTOR,REG 5V
R101	NRSA63J-333N	RESISTOR 33KΩ, 1/16W
R102	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R103	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R104	NRSA63J-561N	RESISTOR 560Ω, 1/16W
R105	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R106	NRSA63J-472N	RESISTOR 4.7KΩ, 1/16W
R107	NRSA63J-472N	RESISTOR 4.7KΩ, 1/16W
R108	NRSA63J-821N	RESISTOR 820Ω, 1/16W
R109	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R110	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R111	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R112	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R113	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R116	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R117	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W
R118	NRSA63J-391N	RESISTOR 390Ω, 1/16W
R119	NRSA63J-104N	RESISTOR 100KΩ, 1/16W
R120	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W
R121	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R124	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W
R125	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R126	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R127	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R128	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R129	NRSA63J-154N	RESISTOR 150KΩ, 1/16W
R130	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R131	NRSA63J-563N	RESISTOR 56KΩ, 1/16W
R132	NRSA63J-123N	RESISTOR 12KΩ, 1/16W
R137	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R138	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R139	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R140	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R141	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R143	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R144	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R145	NRSA63J-124N	RESISTOR 120KΩ, 1/16W
R146	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W
R147	NRSA63J-224N	RESISTOR 220KΩ, 1/16W
R148	NRSA63J-334N	RESISTOR 330KΩ, 1/16W
R149	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R150	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R151	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R156	NRD187J-680N	MLF RESISTOR 68Ω, 1/8W
R157	NRD187J-680N	MLF RESISTOR 68Ω, 1/8W
R158	NRD187J-680N	MLF RESISTOR 68Ω, 1/8W
R159	NRD187J-680N	MLF RESISTOR 68Ω, 1/8W
R160	NRD187J-101N	MLF RESISTOR 100Ω, 1/8W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R161	NRD187J-101N	MLF RESISTOR 100Ω, 1/8W
R162	NRD187J-101N	MLF RESISTOR 100Ω, 1/8W
R163	NRD187J-101N	MLF RESISTOR 100Ω, 1/8W
R171	NVP1201-102N	V RESISTOR,0.5H CCD GAIN
R172	NVP1201-333N	V RESISTOR,0.5H JUMP DET
R173	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R174	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R175	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R176	YU41674-Y	RESISTOR
R177	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R178	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
C4	NEE21DM-106RZ	E CAPACITOR 10μF,20V
C6	PECA0741-156ML	E CAPACITOR 15μF,20V
C7	NCB31HK-102A	CAPACITOR 0.001μF,50V
C8	PECA0740-685ML	E CAPACITOR
C9	NEE21CM-106RY	E CAPACITOR 10μF,16V
C10	QCYA1EK-104	CAPACITOR 0.1μF,25V
C11	QCY81EK-104	CAPACITOR 0.1μF,25V
C12	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C13	QCF41EZ-104	CAPACITOR 0.1μF,25V
C14	QCSA1HJ-391	CAPACITOR 390pF,50V
C15	QCY81EK-104	CAPACITOR 0.1μF,25V
C16	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C17	NCB31HK-102A	CAPACITOR 0.001μF,50V
C18	PECA0740-685ML	E CAPACITOR
C19	NEE21DM-475RY	E CAPACITOR 4.7μF,20V
C20	QCYA1EK-104	CAPACITOR 0.1μF,25V
C21	YU40688-336N	E CAPACITOR 33μF,10V
C22	YU40688-336N	E CAPACITOR 33μF,10V
C23	NCB31EK-103A	CAPACITOR 0.01μF,25V
C24	NCB31EK-103A	CAPACITOR 0.01μF,25V
C25	YU40688-476N	E CAPACITOR 47μF,5.5V
C26	YU40688-476N	E CAPACITOR 47μF,5.5V
C27	NEE21DM-475RY	E CAPACITOR 4.7μF,20V
C28	NEE21DM-475RY	E CAPACITOR 4.7μF,20V
C31	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C32	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C101	NCB31EK-103A	CAPACITOR 0.01μF,25V
C102	NCS31HJ-560A	CAPACITOR 56pF,50V
C103	NCB31EK-103A	CAPACITOR 0.01μF,25V
C104	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C105	NCS31HJ-220A	CAPACITOR 22pF,50V
C106	NCS31HJ-180A	CAPACITOR 18pF,50V
C107	NCB31EK-103A	CAPACITOR 0.01μF,25V
C108	NEE21CM-105RY	E CAPACITOR 1μF,16V
C109	NEE21EM-474RY	E CAPACITOR 0.47μF,25V
C110	NEE21CM-105RY	E CAPACITOR 1μF,16V
C111	NEE21CM-225RY	E CAPACITOR 2.2μF,16V
C112	NCB31EK-103A	CAPACITOR 0.01μF,25V
C113	YU40688-476N	E CAPACITOR 47μF,5.5V
C114	NCS31HJ-151A	CAPACITOR 150pF,50V
C115	NCS31HJ-270A	CAPACITOR 27pF,50V
C116	NCB31HK-152A	CAPACITOR 0.0015μF,50V
C117	NEN11HM-105NZ	E CAPACITOR 1μF,50V
C118	NEE20JM-475RY	E CAPACITOR 4.7μF,6.3V
C120	NEE21CM-105RY	E CAPACITOR 1μF,16V
C121	NCB31EK-103A	CAPACITOR 0.01μF,25V
C122	NCB31EK-103A	CAPACITOR 0.01μF,25V
C123	NCB31EK-103A	CAPACITOR 0.01μF,25V
C124	NCB31EK-103A	CAPACITOR 0.01μF,25V
C125	YU40688-476N	E CAPACITOR 47μF,5.5V
C126	NCB31EK-103A	CAPACITOR 0.01μF,25V

#△ REF No.	PART No.	PART NAME, DESCRIPTION
C127	NCB31HK-222A	CAPACITOR 0.0022μF,50V
C128	NCB31EK-103A	CAPACITOR 0.01μF,25V
C129	QFN41HJ-222	M CAPACITOR 0.0022μF,50V
C130	NEE21CM-105RY	E CAPACITOR 1μF,16V
C131	NCB31CK-273A	CAPACITOR 0.027μF,16V
C132	NCB31HK-332A	CAPACITOR 0.0033μF,50V
C136	NCB31EK-103A	CAPACITOR 0.01μF,25V
C137	NCB31EK-103A	CAPACITOR 0.01μF,25V
C138	NCB31EK-103A	CAPACITOR 0.01μF,25V
C139	YU40688-476N	E CAPACITOR 47μF,5.5V
C140	NCB31EK-103A	CAPACITOR 0.01μF,25V
C141	NCB31EK-103A	CAPACITOR 0.01μF,25V
C142	YU40688-476N	E CAPACITOR 47μF,5.5V
C144	NCB31EK-103A	CAPACITOR 0.01μF,25V
C145	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C146	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C147	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C148	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C149	YU40688-336N	E CAPACITOR 33μF,10V
C150	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C151	NEE20GM-106RY	E CAPACITOR 10μF,4.0V
C153	NCB31EK-103A	CAPACITOR 0.01μF,25V
C154	NCB31EK-103A	CAPACITOR 0.01μF,25V
C155	NCB31EK-103A	CAPACITOR 0.01μF,25V
C156	NCB31EK-103A	CAPACITOR 0.01μF,25V
C157	NCB31EK-103A	CAPACITOR 0.01μF,25V
C161	PECA0809-337JP	E CAPACITOR 330μF,6.3V
C162	PECA0809-337JP	E CAPACITOR 330μF,6.3V
C163	QCYA1EK-104	CAPACITOR 0.1μF,25V
C164	QCYA1EK-104	CAPACITOR 0.1μF,25V
C165	NCB31EK-103A	CAPACITOR 0.01μF,25V
C166	NEA31CM-106N	E CAPACITOR 10μF,16V
C167	NCS31HJ-101A	CAPACITOR 100pF,50V
C168	NCS31HJ-101A	CAPACITOR 100pF,50V
L1	PELN0599-P	COIL
L2	PELN0325-100KZ	COIL
L3	PELN0325-150KZ	COIL 15μH
L101	YU41135-470	COIL 47μH
L102	PU58201-2R2K	COIL 2.2μH
L103	YU41134-560JY	COIL 56μH
L104	YU41134-470JY	COIL 47μH
L105	YU41135-470	COIL 47μH
L106	YU41135-470	COIL 47μH
L107	YU41135-470	COIL 47μH
L109	YU41135-470	COIL 47μH
LPF101	PELN0466-P	LOW PASS FILTER
T1	PELN0795-P	SW TRANS
T2	PELN0795-P	SW TRANS
J1	YQ42826-1-2	AV JACK
SPC1	YQM30029-146	SPACER
SPC2	YQM30029-132	SPACER
SLD1	YQ43098	SHEET(PROTECT)
WR1	PEWR0666	FPC
TML1	YQ31096-1-2	BATTERY TERMINAL UNIT
CN1	YU41356-8-R	CONNECTOR
CN2	PEMC0855-012-R	CONNECTOR
CN3	YU41359-30-R	CONNECTOR
CN4	YU41359-30-R	CONNECTOR
CN5	PEMC0910-003-P	CONNECTOR
△ CP1	ICP-N15	CIRCUIT PROTECTOR
△ CP2	ICP-N38	CIRCUIT PROTECTOR
△ CP3	ICP-N38	CIRCUIT PROTECTOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION
△ CP4	ICP-N10	CIRCUIT PROTECTOR

MIC AMP BOARD ASSEMBLY <03>

PWBA1	YB20608A1-03	MIC AMP BOARD ASSY
IC101	BA3308F	IC
IC102	MSM6372-114VK	IC
Q1	2SC4617(QRS)	TRANSISTOR
Q2	2SC4617(QRS)	TRANSISTOR
Q3	2SA1774(QRS)	TRANSISTOR
Q4	2SA1774(QRS)	TRANSISTOR
Q5	UMT1	TRANSISTOR
Q6	UMT1	TRANSISTOR
Q7	2SK665	TRANSISTOR
Q8	2SK665	TRANSISTOR
Q9	2SK662	FE TRANSISTOR
Q10	2SK662	FE TRANSISTOR
Q11	2SC4617(QRS)	TRANSISTOR
Q12	2SC4617(QRS)	TRANSISTOR
Q101	DTA144EE	TRANSISTOR
Q102	DTC124EE	TRANSISTOR
Q103	UMW1	TRANSISTOR
Q104	2SC4617(QRS)	TRANSISTOR
D101	DA221	DIODE
D102	MA110	DIODE
D103	PAS-B0642	IR DETECT UNIT
D104	IMN10	DIODE
D105	DA221	DIODE
R1	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R2	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R3	NRSA63J-154N	RESISTOR 150KΩ,1/16W
R4	NRSA63J-154N	RESISTOR 150KΩ,1/16W
R5	NRSA63J-154N	RESISTOR 150KΩ,1/16W
R6	NRSA63J-154N	RESISTOR 150KΩ,1/16W
R7	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R8	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R9	NRSA63J-822N	RESISTOR 8.2KΩ,1/16W
R10	NRSA63J-822N	RESISTOR 8.2KΩ,1/16W
R11	NRSA63J-563N	RESISTOR 56KΩ,1/16W
R12	NRSA63J-563N	RESISTOR 56KΩ,1/16W
R13	NRSA63J-222N	RESISTOR 2.2KΩ,1/16W
R14	NRSA63J-222N	RESISTOR 2.2KΩ,1/16W
R15	NRSA63J-224N	RESISTOR 220KΩ,1/16W
R16	NRSA63J-224N	RESISTOR 220KΩ,1/16W
R17	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R18	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R19	NRSA63J-392N	RESISTOR 3.9KΩ,1/16W
R20	NRSA63J-392N	RESISTOR 3.9KΩ,1/16W
R21	NRSA63J-821N	RESISTOR 820Ω,1/16W
R22	NRSA63J-821N	RESISTOR 820Ω,1/16W
R23	NRSA63J-561N	RESISTOR 560Ω,1/16W
R24	NRSA63J-561N	RESISTOR 560Ω,1/16W
R25	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R26	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R27	NRSA63J-222N	RESISTOR 2.2KΩ,1/16W
R28	NRSA63J-222N	RESISTOR 2.2KΩ,1/16W
R29	NRSA63J-104N	RESISTOR 100KΩ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R30	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R31	NRSA63J-101N	RESISTOR 100Ω,1/16W
R32	NRSA63J-101N	RESISTOR 100Ω,1/16W
R33	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R34	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R35	NRSA63J-221N	RESISTOR 220Ω,1/16W
R36	NRSA63J-221N	RESISTOR 220Ω,1/16W
R37	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R38	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R39	NRSA63J-124N	RESISTOR 120KΩ,1/16W
R40	NRSA63J-124N	RESISTOR 120KΩ,1/16W
R41	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R42	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R43	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R44	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R45	NRSA63J-273N	RESISTOR 27KΩ,1/16W
R46	NRSA63J-273N	RESISTOR 27KΩ,1/16W
R47	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R48	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R49	NRSA63J-182N	RESISTOR 1.8KΩ,1/16W
R50	NRSA63J-182N	RESISTOR 1.8KΩ,1/16W
R51	NRSA63J-473N	RESISTOR 47KΩ,1/16W
R52	NRSA63J-473N	RESISTOR 47KΩ,1/16W
R53	NRSA63J-223N	RESISTOR 22KΩ,1/16W
R54	NRSA63J-223N	RESISTOR 22KΩ,1/16W
R55	NRVA63D-272N	RESISTOR 2.7KΩ,1/16W
R56	NRVA63D-272N	RESISTOR 2.7KΩ,1/16W
R57	NRVA63D-102N	RESISTOR 1KΩ,1/16W
R58	NRVA63D-102N	RESISTOR 1KΩ,1/16W
R101	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R102	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R103	NRSA63J-472N	RESISTOR 4.7KΩ,1/16W
R104	QRSA08J-391YN	RESISTOR 390Ω,1/10W
R105	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R106	NRSA63J-154N	RESISTOR 150KΩ,1/16W
R107	NRSA63J-153N	RESISTOR 15KΩ,1/16W
R108	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R109	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R110	NRSA63J-105N	RESISTOR 1MΩ,1/16W
R112	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R113	NRSA63J-272N	RESISTOR 2.7KΩ,1/16W
R114	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R115	NRSA63J-823N	RESISTOR 82KΩ,1/16W
R116	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R118	NRSA63J-182N	RESISTOR 1.8KΩ,1/16W
R119	QRSA08J-121YN	RESISTOR 120Ω,1/10W
C3	QCYA1EK-473	CAPACITOR 0.047μF,25V
C4	QCYA1EK-473	CAPACITOR 0.047μF,25V
C5	NCS31HJ-101A	CAPACITOR 100pF,50V
C6	NCS31HJ-101A	CAPACITOR 100pF,50V
C7	QCYA1EK-104	CAPACITOR 0.1μF,25V
C8	QCYA1EK-104	CAPACITOR 0.1μF,25V
C9	NCS31EK-223A	CAPACITOR 0.022μF,25V
C10	NCS31EK-223A	CAPACITOR 0.022μF,25V
C11	QCYA1EK-683	CAPACITOR 0.068μF,25V
C12	QCYA1EK-683	CAPACITOR 0.068μF,25V
C13	QCYA1EK-104	CAPACITOR 0.1μF,25V
C14	QCYA1EK-104	CAPACITOR 0.1μF,25V
C15	QCFA1CZ-105	CAPACITOR 1μF,16V
C16	QCFA1CZ-105	CAPACITOR 1μF,16V
C19	NEE20GM-475R	E CAPACITOR 4.7μF,4.0V
C20	NEE20GM-475R	E CAPACITOR 4.7μF,4.0V

#△ REF No.	PART No.	PART NAME, DESCRIPTION
C21	NEE21AM-105R	E CAPACITOR 1μF,10V
C22	NEE21AM-105R	E CAPACITOR 1μF,10V
C25	QCYA1EK-104	CAPACITOR 0.1μF,25V
C26	QCYA1EK-104	CAPACITOR 0.1μF,25V
C27	QCFA1CZ-105	CAPACITOR 1μF,16V
C28	QCFA1CZ-105	CAPACITOR 1μF,16V
C31	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
C32	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
C33	NEA31HM-105N	E CAPACITOR 1μF,50V
C34	NEA31HM-105N	E CAPACITOR 1μF,50V
C35	NCS31HJ-101A	CAPACITOR 100pF,50V
C36	NCS31HJ-101A	CAPACITOR 100pF,50V
C37	NEA31HM-105N	E CAPACITOR 1μF,50V
C38	NEA31HM-105N	E CAPACITOR 1μF,50V
C101	QEK40JM-227	E CAPACITOR 220μF,6.3V
C102	YU40688-476N	E CAPACITOR 47μF,5.5V
C103	NEE21AM-475R	E CAPACITOR 4.7μF,10V
C105	NEH11EM-475N	E CAPACITOR 4.7μF,16V
C106	NCS31HJ-101A	CAPACITOR 100pF,50V
C107	NEH11CM-106N	E CAPACITOR 10μF,16V
C108	QCFA1CZ-105	CAPACITOR 1μF,16V
C109	QCYA1EK-104	CAPACITOR 0.1μF,25V
C110	YU40688-476N	E CAPACITOR 47μF,5.5V
C111	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C112	QCYA1HK-153	CAPACITOR 0.015μF,50V
C113	YU40688-476N	E CAPACITOR 47μF,5.5V
C114	QCFA1CZ-105	CAPACITOR 1μF,16V
C115	NCF31CZ-104A	CAPACITOR 0.1μF,16V
J1	YU41413	MIC JACK
CN1	YU40095-3	CONNECTOR
CN2	YU40095-4	CONNECTOR
CN3	YU41356-6	CONNECTOR
CN4	YU41356-2	CONNECTOR

SENSOR BOARD ASSEMBLY <04>

PWBA	YQ31063B-7	SENSOR BOARD ASSY
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POWER SW BOARD ASSEMBLY <06>

PWBA	YQ42885-1-2	POWER SW BOARD ASSY
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OPERATION(CAMERA)BOARD ASSEMBLY <07>

PWBA	YQ10389-2-8	OPERATION(CAMERA)BOARD ASSY
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#△ REF No.	PART No.	PART NAME, DESCRIPTION
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END SENSOR BRACKET ASSY <08>

PWBA	YQ42431A-4	END SENSOR BRACKET ASSY
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ZOOM SW BOARD ASSEMBLY <09>

PWBA	YQ31275	ZOOM SW BOARD ASSY
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CCD BOARD ASSEMBLY <11>

PWBA	YB20666A	CCD BOARD ASSY
IC1	MC-8641	IC
IC4	MM1065GM	IC
IC5	MM1065GM	IC
IC7	UPC2397GS	IC
Q1	2SA1532(BC)	TRANSISTOR
Q2	2SA1532(BC)	TRANSISTOR
Q3	2SC3936(BC)	TRANSISTOR
Q4	XP5601	TRANSISTOR
Q5	XP5601	TRANSISTOR
Q6	XP5501	TRANSISTOR
D1	MA110	DIODE
D2	MA8240	DIODE
D3	MA8240	DIODE
D4	MA110	DIODE
R4	NRSA63J-100N	RESISTOR 10Ω,1/16W
R5	NRSA63J-471N	RESISTOR 470Ω,1/16W
R6	NRSA63J-821N	RESISTOR 820Ω,1/16W
R7	NRSA63J-432N	RESISTOR 4.3KΩ,1/16W
R8	NRSA63J-153N	RESISTOR 15KΩ,1/16W
R9	NRSA63J-392N	RESISTOR 3.9KΩ,1/16W
R10	NRSA63J-393N	RESISTOR 39KΩ,1/16W
R11	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R12	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R13	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R14	NRSA63J-392N	RESISTOR 3.9KΩ,1/16W
R15	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R16	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R17	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R18	NRSA63J-100N	RESISTOR 10Ω,1/16W
R19	YU41807-Y	INDUCTOR
R20	NRSA63J-471N	RESISTOR 470Ω,1/16W
R22	NRSA63J-101N	RESISTOR 100Ω,1/16W
R24	NRSA63J-272N	RESISTOR 2.7KΩ,1/16W
R25	NRSA63J-101N	RESISTOR 100Ω,1/16W
R28	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R29	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R30	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R31	QRSA08J-100YN	RESISTOR 10Ω,1/10W
R33	NRSA63J-822N	RESISTOR 8.2KΩ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R34	NRSA63J-822N	RESISTOR 8.2KΩ, 1/16W
R35	NRSA63J-153N	RESISTOR 15KΩ, 1/16W
R36	NRSA63J-153N	RESISTOR 15KΩ, 1/16W
R37	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R38	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R39	NRSA63J-432N	RESISTOR 4.3KΩ, 1/16W
R40	NRSA63J-821N	RESISTOR 820Ω, 1/16W
R41	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R45	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R46	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
C1	NEE21EM-225RY	E CAPACITOR 2.2μF, 25V
C2	QCFA1CZ-105	CAPACITOR 1μF, 16V
C3	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C4	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C5	NEE21EM-106RZ	E CAPACITOR 10μF, 25V
C6	QCFA1CZ-105	CAPACITOR 1μF, 16V
C7	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C8	NEE21EM-225RY	E CAPACITOR 2.2μF, 25V
C9	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C10	NEE21EM-225RY	E CAPACITOR 2.2μF, 25V
C11	NEE21AM-335RY	E CAPACITOR 3.3μF, 10V
C12	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C13	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C14	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C15	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C16	NCT07CH-101A	CAPACITOR 100pF, 50V
C17	NCF31CZ-473A	CAPACITOR 0.047μF, 16V
C18	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C19	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C20	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C21	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C22	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C23	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C24	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C25	QCFA1CZ-105	CAPACITOR 1μF, 16V
C26	QCFA1CZ-105	CAPACITOR 1μF, 16V
C27	NEE20JM-156RY	E CAPACITOR 15μF, 6.3V
C28	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C30	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C31	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C32	QCFA1CZ-105	CAPACITOR 1μF, 16V
C33	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C34	QCFA1CZ-105	CAPACITOR 1μF, 16V
C35	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C36	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C37	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C38	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C39	NEE21EM-106RZ	E CAPACITOR 10μF, 25V
C40	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C41	NEE21EM-225RY	E CAPACITOR 2.2μF, 25V
C42	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C43	NCT07CH-100A	CAPACITOR 10pF, 50V
L1	YU40740-220K	COIL 22μH
L2	YU40740-220K	COIL 22μH
L3	YU40740-220K	COIL 22μH
L4	YU40740-220K	COIL 22μH
L5	YU40740-220K	COIL 22μH
L6	YU40740-220K	COIL 22μH
L7	YU40740-220K	COIL 22μH
L8	YU40740-220K	COIL 22μH
L9	YU40740-220K	COIL 22μH
L10	YU40740-220K	COIL 22μH

#△ REF No.	PART No.	PART NAME, DESCRIPTION
L11	YU41674-Y	INDUCTOR
L12	QSA08J-0R0Y	RESISTOR 0Ω, 1/10W
L13	QSA08J-0R0Y	RESISTOR 0Ω, 1/10W
L14	QSA08J-0R0Y	RESISTOR 0Ω, 1/10W
L15	QSA08J-0R0Y	RESISTOR 0Ω, 1/10W
L16	QSA08J-0R0Y	RESISTOR 0Ω, 1/10W
△ X1	PEVB0403-P	CXO
CN1	YU41849-22-R	CONNECTOR
CN2	PEMC0912	CONNECTOR

VIDEO BOARD ASSEMBLY <12>

#△ REF No.	PART No.	PART NAME, DESCRIPTION
PWBA	YB20653A-01	VIDEO BOARD ASSY
IC1	JCY0024	IC
IC2	HD6435208A31F	IC
	or HD6475208F10A31	IC
IC3	MM1065GM	IC
IC4	MB88371PFV	IC
IC5	IC-PST7042MT-X	IC
IC6	JCY0025A	IC
IC7	JCY0022	IC
IC8	HD49306AF	IC
IC9	UPD9436BGK	IC
IC10	MM1065GM	IC
IC11	JCY0015	IC
IC12	JCY0013	IC
IC13	JCY0014	IC
IC14	TC7S08F	IC
IC15	MM1065GM	IC
IC16	MM1031XM	IC
IC17	TC7S08F	IC
IC18	TC7W32FU	IC
IC19	HM53051FP60L	IC
IC20	HM53051FP60L	IC
IC21	HM53051FP60L	IC
IC22	TC7S04F	IC
Q1	2SC4655	TRANSISTOR
Q2	2SC4655	TRANSISTOR
Q3	2SC4655	TRANSISTOR
Q4	2SA1790	TRANSISTOR
Q5	2SC4655	TRANSISTOR
Q6	2SA1790	TRANSISTOR
Q7	2SA1790	TRANSISTOR
Q8	2SC4655	TRANSISTOR
Q9	2SC4655	TRANSISTOR
Q10	2SC4655	TRANSISTOR
D1	RB715F	DIODE
D2	RB715F	DIODE
D3	RB715F	DIODE
D4	RB715F	DIODE
D5	RB715F	DIODE
D6	RB715F	DIODE
D7	RB715F	DIODE
D8	RB715F	DIODE
D11	RB715F	DIODE
D12	RB715F	DIODE
D13	RB715F	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION
D14	RB715F	DIODE
D15	RB715F	DIODE
D16	RB715F	DIODE
D17	RB715F	DIODE
D18	RB715F	DIODE
D20	RB715F	DIODE
D21	RB715F	DIODE
D22	RB715F	DIODE
D26	RB715F	DIODE
D27	1SV213	DIODE
R1	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R2	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R4	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R5	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R6	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R7	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R8	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R10	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R12	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R14	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R16	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R17	NRSA63J-332N	RESISTOR 3.3KΩ, 1/16W
R18	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R21	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R22	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R23	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R24	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R25	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R26	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R27	NRSA63J-241N	RESISTOR 240Ω, 1/16W
R28	NRSA63J-241N	RESISTOR 240Ω, 1/16W
R29	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R30	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R31	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R32	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R33	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R34	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R35	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R36	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R37	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R38	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R39	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R40	NRSA63J-104N	RESISTOR 100KΩ, 1/16W
R41	NRSA63J-151N	RESISTOR 150Ω, 1/16W
R42	NRSA63J-563N	RESISTOR 56KΩ, 1/16W
R43	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R44	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R45	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R46	NRSA63J-183N	RESISTOR 18KΩ, 1/16W
R47	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R48	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R49	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R51	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R52	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R53	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R55	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R62	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R63	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R64	NRSA63J-152N	RESISTOR 1.5KΩ, 1/16W
R73	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R74	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R80	NRSA63J-331N	RESISTOR 330Ω, 1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R83	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R85	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R86	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R87	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R88	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R89	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R91	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R94	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R95	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R96	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R98	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R99	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R100	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R101	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R102	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R103	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R104	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R105	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R106	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R107	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R108	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R109	NRSA63J-331N	RESISTOR 330Ω, 1/16W
R110	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R111	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R112	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R113	NRSA63J-123N	RESISTOR 12KΩ, 1/16W
R114	NRSA63J-182N	RESISTOR 1.8KΩ, 1/16W
R115	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R116	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R118	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R119	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R120	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R121	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R122	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R123	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R124	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R125	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R126	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R127	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R129	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R130	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R131	NRSA63J-222N	RESISTOR 2.2KΩ, 1/16W
R132	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R133	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
C1	NCT07CH-100A	CAPACITOR 10pF, 50V
C2	NCT07CH-100A	CAPACITOR 10pF, 50V
C3	NEE21EM-225RY	E CAPACITOR 2.2μF, 25V
C4	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C5	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C6	QCFA1EZ-104	CAPACITOR 0.1μF, 25V
C7	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C8	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C9	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C10	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C11	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C12	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C13	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C14	NEE20JM-156RY	E CAPACITOR 15μF, 6.3V
C15	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C16	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C17	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C18	NCF31CZ-104A	CAPACITOR 0.1μF, 16V

≠△ REF No.	PART No.	PART NAME, DESCRIPTION
C19	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C20	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C21	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C24	NEE21AM-106RY	E CAPACITOR 10μF,10V
C25	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C26	NEE21CM-685RY	E CAPACITOR 6.8μF,16V
C27	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C28	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C29	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C30	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C31	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C33	NEE20JM-156RY	E CAPACITOR 15μF,6.3V
C34	NEE21AM-106RY	E CAPACITOR 10μF,10V
C35	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C36	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C37	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C38	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C39	NEE20JM-156RY	E CAPACITOR 15μF,6.3V
C40	NEE21EM-105RY	E CAPACITOR 1μF,25V
C41	QCFA1CZ-105	CAPACITOR 1μF,16V
C43	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C44	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C45	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C46	NEE21AM-106RY	E CAPACITOR 10μF,10V
C47	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C48	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C49	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C50	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C51	NEE21CM-685RY	E CAPACITOR 6.8μF,16V
C52	NCT07CH-100A	CAPACITOR 10pF,50V
C53	NEE21AM-106RY	E CAPACITOR 10μF,10V
C54	NEE21CM-685RY	E CAPACITOR 6.8μF,16V
C55	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C56	NEE21AM-106RY	E CAPACITOR 10μF,10V
C57	NEE21CM-685RY	E CAPACITOR 6.8μF,16V
C58	NEE21CM-685RY	E CAPACITOR 6.8μF,16V
C59	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C60	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C61	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C62	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C63	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C64	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C65	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C66	NCF31CZ-104A	CAPACITOR 0.1μF,16V
C67	NCT07CH-470A	CAPACITOR 47pF,50V
C68	NCT07CH-220A	CAPACITOR 22pF,50V
C69	NCB31HK-102A	CAPACITOR 0.001μF,50V
C70	NEE21CM-105RY	E CAPACITOR 1μF,16V
C71	NCF31CZ-104A	CAPACITOR 0.1μF,16V
L1	PELN0704-100KY	COIL
L2	PELN0704-100KY	COIL
L3	YU40740-220K	COIL 22μH
L4	QRS08J-0R0Y	RESISTOR 0Ω,1/10W
L5	PELN0704-100KY	COIL
L6	YU40740-220K	COIL 22μH
L7	YU40740-220K	COIL 22μH
L8	PELN0704-100KY	COIL
L10	QRS08J-0R0Y	RESISTOR 0Ω,1/10W
LPF1	PELN0788-Z	LOW PASS FILTER
BPF1	PELN0887-Z	BAND PASS FILTER
△ X1	PEVB0509-Z	CRYSTAL RESONATOR
△ X2	PEVB0416-R	CRYSTAL RESONATOR

≠△ REF No.	PART No.	PART NAME, DESCRIPTION
WR1	ML-Y00654B	C-D WIRE ASSY
CN1	PEMC0822-22-R	CONNECTOR
CN2	YU41359-30-R	CONNECTOR
CN3	YU41359-30-R	CONNECTOR
CN4	YU40667-12	CONNECTOR
CN5	YU41356-8-R	CONNECTOR
CN6	PEMC0885-018-R	CONNECTOR

CPU BOARD ASSEMBLY <13>		
PWBA	YB20652A-01	CPU BOARD ASSY
IC1	UPC324G2	IC
IC2	M62353GP	IC
IC3	TC4W53F	IC
IC4	LM358DB-XE	IC
IC5	MM1065GM	IC
IC6	MM1065GM	IC
IC7	M888371PFV	IC
IC8	M37702M4L256GP	IC
IC10	IC-PST7045MT-X	IC
IC11	LM324DB-XE	IC
IC12	CAT35C102K-XE	IC
IC13	JCY0021	IC
IC14	BU1206-00	IC
IC21	MM1065GM	IC
IC22	M37702M4L255GP	IC
IC23	TB6504F	IC
IC28	LB1830M	IC
IC29	SN74HC14DB-XE	IC
IC30	TC7508F	IC
IC31	TC7532F	IC
Q1	2SA1532(BC)	TRANSISTOR
Q4	FMC5	TRANSISTOR
Q5	FMC5	TRANSISTOR
Q6	XM1B301	TRANSISTOR
Q7	XM1B301	TRANSISTOR
Q8	XP5501	TRANSISTOR
D1	RB715F	DIODE
D2	RB715F	DIODE
D3	RB715F	DIODE
D4	RB715F	DIODE
D5	RB715F	DIODE
D6	RB715F	DIODE
D8	RB715F	DIODE
D9	RB715F	DIODE
D10	RB715F	DIODE
D11	RB715F	DIODE
D12	RB715F	DIODE
D13	RB715F	DIODE
D14	RB715F	DIODE
D15	RB715F	DIODE
D16	MA141WA	DIODE
D17	MA8068	DIODE
D18	MA8068	DIODE
D19	MA8068	DIODE
D20	MA8068	DIODE
R1	NRSA63J-125N	RESISTOR 1.2MΩ,1/16W

≠△ REF No.	PART No.	PART NAME, DESCRIPTION
R2	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R3	NRSA63J-823N	RESISTOR 82KΩ,1/16W
R4	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R5	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R6	NRSA63J-393N	RESISTOR 39KΩ,1/16W
R7	NRSA63J-101N	RESISTOR 100Ω,1/16W
R8	NRSA63J-563N	RESISTOR 56KΩ,1/16W
R9	NRSA63J-163N	RESISTOR 16KΩ,1/16W
R10	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R12	NRSA63J-123N	RESISTOR 12KΩ,1/16W
R14	NRSA63J-243N	RESISTOR 24KΩ,1/16W
R17	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R18	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R19	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R20	NRSA63J-100N	RESISTOR 10Ω,1/16W
R21	NRSA63J-100N	RESISTOR 10Ω,1/16W
R22	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R24	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R25	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R26	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R27	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R28	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R29	NRSA63J-912N	RESISTOR 9.1KΩ,1/16W
R30	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R31	NRSA63J-823N	RESISTOR 82KΩ,1/16W
R32	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R33	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R34	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R35	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R36	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R37	M37702M4L255GP	RESISTOR 560Ω,1/16W
R38	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R39	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R40	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R41	NRSA63J-393N	RESISTOR 39KΩ,1/16W
R44	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R46	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R47	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R48	NRSA63J-203N	RESISTOR 20KΩ,1/16W
R49	NRSA63J-202N	RESISTOR 2KΩ,1/16W
R50	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R51	NRSA63J-100N	RESISTOR 10Ω,1/16W
R52	NRSA63J-100N	RESISTOR 10Ω,1/16W
R53	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R54	NRSA63J-333N	RESISTOR 33KΩ,1/16W
R55	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R56	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R57	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R58	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R60	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R62	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R64	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R65	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R66	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R67	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R68	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R69	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R70	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R71	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R72	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R73	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R74	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W

≠△ REF No.	PART No.	PART NAME, DESCRIPTION
R75	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R76	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R77	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R78	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R79	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R80	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R81	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R82	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R84	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R85	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R86	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R87	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R88	NRSA63J-122N	RESISTOR 1.2KΩ,1/16W
R89	NRSA63J-101N	RESISTOR 100Ω,1/16W
R90	NRSA63J-331N	RESISTOR 330Ω,1/16W
R91	NRSA63J-101N	RESISTOR 100Ω,1/16W
R92	NRSA63J-331N	RESISTOR 330Ω,1/16W
R94	NRSA63J-101N	RESISTOR 100Ω,1/16W
R95	NRSA63J-125N	RESISTOR 1.2MΩ,1/16W
R97	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R98	NRSA63J-3R3N	RESISTOR 3.3Ω,1/16W
R99	NRSA63J-3R3N	RESISTOR 3.3Ω,1/16W
R101	NRSA63J-223N	RESISTOR 22KΩ,1/16W
R102	NRSA63J-273N	RESISTOR 27KΩ,1/16W
R105	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R106	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R108	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R109	NRSA63J-102N	RESISTOR 1KΩ,1/16W
R110	NRSA63J-331N	RESISTOR 330Ω,1/16W
R111	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R113	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R114	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R118	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R122	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R123	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R124	NRSA63J-473N	RESISTOR 47KΩ,1/16W
R125	NRSA63J-473N	RESISTOR 47KΩ,1/16W
R126	NRSA63J-473N	RESISTOR 47KΩ,1/16W
R127	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R128	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R129	NRSA63J-181N	RESISTOR 180Ω,1/16W
R131	NRSA63J-181N	RESISTOR 180Ω,1/16W
R132	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R133	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R135	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R136	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R138	NRSA63J-332N	RESISTOR 3.3KΩ,1/16W
R139	NRSA63J-332N	RESISTOR 3.3KΩ,1/16W
R140	NRSA63J-332N	RESISTOR 3.3KΩ,1/16W
R141	NRSA63J-332N	RESISTOR 3.3KΩ,1/16W
R143	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R144	QRS188J-0R0YN	RESISTOR 0Ω,1/8W
R145	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R146	NRSA63J-103N	RESISTOR 10KΩ,1/16W
R149	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R151	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R152	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R154	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R155	NRSA63J-0R0N	RESISTOR 0Ω,1/16W
R157	NRSA63J-104N	RESISTOR 100KΩ,1/16W
R158	NRSA63J-333N	RESISTOR 33KΩ,1/16W
R159	NRSA63J-333N	RESISTOR 33KΩ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R160	NRSA63J-104N	RESISTOR 100KΩ, 1/16W
R161	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R162	NRSA63J-333N	RESISTOR 33KΩ, 1/16W
R163	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R164	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R166	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R167	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R168	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R169	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R170	NRSA63J-122N	RESISTOR 1.2KΩ, 1/16W
R171	NRSA63J-221N	RESISTOR 220Ω, 1/16W
R172	NRSA63J-184N	RESISTOR 180KΩ, 1/16W
R173	QRS188J-0R0YN	RESISTOR 0Ω, 1/8W
R175	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R176	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
C1	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C2	NCT07CH-221A	CAPACITOR 220pF, 50V
C3	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C4	NEE20JM-156RY	E CAPACITOR 15μF, 6.3V
C6	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C7	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C8	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C9	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C10	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C11	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C12	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C13	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C14	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C15	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C16	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C17	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C19	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C20	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C21	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C22	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C23	NEE21DM-475RY	E CAPACITOR 4.7μF, 20V
C24	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C25	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C26	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C27	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C28	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C29	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C30	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C31	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C32	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C33	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C35	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C36	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C37	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C38	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C42	NEE20JM-156RY	E CAPACITOR 15μF, 6.3V
C43	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C44	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C45	NEE21DM-475RY	E CAPACITOR 4.7μF, 20V
C46	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C47	NEE21AM-106RY	E CAPACITOR 10μF, 10V
C48	NCB31EK-332A	CAPACITOR 0.0033μF, 25V
C49	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C50	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C51	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C55	NCB31EK-472A	CAPACITOR 0.0047μF, 25V
C56	NCB31EK-472A	CAPACITOR 0.0047μF, 25V

#△ REF No.	PART No.	PART NAME, DESCRIPTION
C57	NCB31EK-472A	CAPACITOR 0.0047μF, 25V
C58	NCB31EK-472A	CAPACITOR 0.0047μF, 25V
C59	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C60	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C61	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C63	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C64	NEE21DM-226RZ	E CAPACITOR 22μF, 20V
L1	YU40740-220K	COIL 22μH
L2	YU40740-220K	COIL 22μH
L3	YU40740-220K	COIL 22μH
L4	YU40740-220K	COIL 22μH
△ X1	PEVB0461-Z	RESONATOR
△ X2	PEVB0461-Z	RESONATOR
CN1	PEMCO859-014-R	CONNECTOR
CN2	YU41358-30-R	CONNECTOR
CN3	YU41358-30-R	CONNECTOR
CN4	PEMCO880-021-R	CONNECTOR
CN5	PEMCO880-009-R	CONNECTOR

TALLY BOARD ASSEMBLY <31>		
PWBA2	YB20608A2-03	TALLY BOARD ASSY
D201	LT1T52A	LE DIODE
WR1	ML-Y00657B	TALLY WIRE

REC LOCK BOARD ASSEMBLY <32>		
PWBA3	YB20608A3-03	REC LOCK BOARD ASSY
SW201	PESW0611	SLIDE SWITCH

TRIGGER BOARD ASSEMBLY <33>		
PWBA5	YB20608A5-03	TRIGGER BOARD ASSY
SW202	YU41685	TACT SWITCH
WR1	ML-Y00662C	REC LOCK WIRE

EJECT BOARD ASSEMBLY <34>		
PWBA4	YB20608A4-03	EJECT BOARD ASSY
SW203	PESW0570-Z	TACT SWITCH
WR1	ML-Y00661B	EJECT WIRE

#△ REF No.	PART No.	PART NAME, DESCRIPTION

DRUM BOARD <40>		
PWB	YDM3068-1-2	UPPER DRUM BOARD

POWER & DRIVER BOARD ASSEMBLY <51>		
PWBA1	YB20654A1	POWER & DRIVER BOARD ASSY
IC101	M5291FP	IC
IC102	TC4S69F	IC
IC103	LM393DB-XE	IC
IC104	ETM3030T0A	IC
Q101	2SB1073(QR)	TRANSISTOR
Q102	DTC124EU	TRANSISTOR
Q103	2SD1819A(QR)	TRANSISTOR
D101	SB07-03C-X	DIODE
D102	MA110	DIODE
D103	MA110	DIODE
D104	1T33	DIODE
D105	MA110	DIODE
R101	NRSA63J-104N	RESISTOR 100KΩ, 1/16W
R102	NRSA63J-821N	RESISTOR 820Ω, 1/16W
R103	NRSA63J-3R3N	RESISTOR 3.3Ω, 1/16W
R104	NRSA63J-3R3N	RESISTOR 3.3Ω, 1/16W
R105	NRSA63J-180N	RESISTOR 18Ω, 1/16W
R106	NRSA63J-391N	RESISTOR 390Ω, 1/16W
R107	NRSA63J-243N	RESISTOR 24KΩ, 1/16W
R108	NVP1308-472N	V RESISTOR, REG 16.5V
R109	NRSA63J-202N	RESISTOR 2KΩ, 1/16W
R110	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R111	NRSA63J-475N	RESISTOR 4.7MΩ, 1/16W
R112	NRVA63D-152N	RESESTOR 1.5KΩ, 1/6W
R113	NRSA63J-392N	RESISTOR 3.9KΩ, 1/16W
R114	NRVA63D-183N	RESISTOR 18KΩ, 1/16W
R115	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R116	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R120	NRVA63D-473N	RESISTOR 47KΩ, 1/16W
R121	NRVA63D-822N	RESISTOR 8.2KΩ, 1/16W
R122	NRVA63D-392N	RESISTOR 3.9KΩ, 1/16W
R125	NRVA63D-392N	RESISTOR 3.9KΩ, 1/16W
R126	NRVA63D-512N	RESISTOR 5.1KΩ, 1/16W
R127	NRSA63J-223N	RESISTOR 22KΩ, 1/16W
R128	NVP1302-223N	V RESISTOR, OSC
R129	NRSA63J-103N	RESISTOR 10KΩ, 1/16W
R130	NRSA63J-104N	RESISTOR 100KΩ, 1/16W
R131	NRSA63J-474N	RESISTOR 470KΩ, 1/16W
R132	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R133	NRSA63J-472N	RESISTOR 4.7KΩ, 1/16W
R134	NRSA63J-471N	RESISTOR 470Ω, 1/16W
R135	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R136	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R138	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R139	NRVA63D-223N	RESISTOR 22KΩ, 1/16W
R140	NRVA63D-563N	RESISTOR 56KΩ, 1/16W
R141	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R142	NRVA63D-203N	RESISTOR 20KΩ, 1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
C101	NEE21CM-336RZ	E CAPACITOR 33μF, 16V
C102	NEE21CM-685RY	E CAPACITOR 6.8μF, 16V
C103	NCT07CH-391A	CAPACITOR 390pF, 50V
C104	NEE21EM-106RZ	E CAPACITOR 10μF, 25V
C105	QCF1CZ-105	CAPACITOR 1μF, 16V
C106	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C107	QEE81CM-225	CAPACITOR 2.2μF, 16V
C108	QCTA1CH-122	CAPACITOR 0.0012μF, 16V
C109	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C111	NEE21AM-225RY	E CAPACITOR 2.2μF, 10V
C112	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C113	NCF31EZ-104A	CAPACITOR 0.1μF, 25V
C114	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C115	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C116	NCB31HK-102A	CAPACITOR 0.001μF, 50V
C117	NCT07CH-680A	CAPACITOR 68pF, 50V
C118	NCB31HK-472A	CAPACITOR 0.0047μF, 50V
C119	QCF81CZ-225	CAPACITOR 2.2μF, 16V
C120	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C121	NCF31EZ-104A	CAPACITOR 0.1μF, 25V
C122	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C123	QCTA1CH-471	CAPACITOR 470pF, 16V
L101	YU41135-220K	COIL 22μH
L102	YU41135-100KY	COIL 10μH
L103	PELN0822-331NP	COIL
L104	PELN0865-120KY	COIL
L105	YU41135-220K	COIL 22μH
L106	YU41135-100KY	COIL 10μH
WR1	ML-Y00683B	C-VF WIRE2
CN101	PEMCO855-020-R	CONNECTOR
CN102	YU41356-10-R	CONNECTOR
CN103	YU41359-12-P	CONNECTOR

CHROMA BOARD ASSEMBLY <52>		
PWBA2	YB20654A2	CHROMA BOARD ASSY
IC201	IR3Y06	IC
D201	RD4.7M(B3)	ZENER DIODE
D202	MA143	DIODE
D203	MA143	DIODE
D204	MA143	DIODE
R202	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R203	NRSA63J-473N	RESISTOR 47KΩ, 1/16W
R204	YU41218-223NZ	V RESISTOR, CONTRAST
R205	NRSA63J-513N	RESISTOR 51KΩ, 1/16W
R206	NRSA63J-475N	RESISTOR 4.7MΩ, 1/16W
R207	NRSA63J-475N	RESISTOR 4.7MΩ, 1/16W
R208	NRSA63J-475N	RESISTOR 4.7MΩ, 1/16W
R209	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R210	NRVA63D-272N	RESISTOR 2.7KΩ, 1/16W
R211	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R213	NRSA63J-513N	RESISTOR 51KΩ, 1/16W
R214	YU41218-223NZ	V RESISTOR, COLOR LEVEL
R215	NRSA63J-363N	RESISTOR 36KΩ, 1/16W
R216	NRSA63J-105N	RESISTOR 1MΩ, 1/16W
R217	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R218	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W

≠Δ REF No.	PART No.	PART NAME, DESCRIPTION
R219	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R221	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R222	NRSA63J-333N	RESISTOR 33KΩ, 1/16W
R223	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R224	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R225	NRSA63J-563N	RESISTOR 56KΩ, 1/16W
R226	NRSA63J-563N	RESISTOR 56KΩ, 1/16W
R227	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R228	NRSA63J-822N	RESISTOR 8.2KΩ, 1/16W
R229	NRSA63J-562N	RESISTOR 5.6KΩ, 1/16W
R230	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R231	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R232	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R233	NRSA63J-101N	RESISTOR 100Ω, 1/16W
R237	NRSA63J-0R0N	RESISTOR 0Ω, 1/16W
R238	NRVA63D-753N	RESISTOR 75KΩ, 1/16W
R239	PERE0492	V RESISTOR, BRIGHT
R240	NRVA63D-393N	RESISTOR 39KΩ, 1/16W
R241	NRSA63J-102N	RESISTOR 1KΩ, 1/16W
R242	NRVA63D-513N	RESISTOR 51KΩ, 1/16W
R243	NRVA63D-513N	RESISTOR 51KΩ, 1/16W
R244	NRVA63D-473N	RESISTOR 47KΩ, 1/16W
R245	NRVA63D-513N	RESISTOR 51KΩ, 1/16W
R246	NRVA63D-753N	RESISTOR 75KΩ, 1/16W
R247	NRVA63D-513N	RESISTOR 51KΩ, 1/16W
C201	NEE21AM-105RY	E CAPACITOR 1μF, 10V
C202	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C203	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C204	NCT07CH-820A	CAPACITOR 82pF, 50V
C205	QCYA1EK-104	CAPACITOR 0.1μF, 25V
C206	NEH11CM-106N	E CAPACITOR 10μF, 16V
C207	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C208	QCFA1CZ-105	CAPACITOR 1μF, 16V
C209	NCB31HK-222A	CAPACITOR 0.0022μF, 50V
C210	NCB31EK-153A	CAPACITOR 0.015μF, 25V
C211	QCFA1CZ-225	CAPACITOR 2.2μF, 16V
C212	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C213	NCT07CH-510A	CAPACITOR 51pF, 50V
C214	NCT07CH-151A	CAPACITOR 150pF, 50V
C215	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C216	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C217	NCT07CH-120A	CAPACITOR 12pF, 50V
C218	QCYA1EK-473	CAPACITOR 0.047μF, 25V
C219	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C220	NCT07CH-120A	CAPACITOR 12pF, 50V
C221	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C222	QCFA1CZ-474	CAPACITOR 0.47μF, 16V
C223	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C224	NEE21EM-105RY	E CAPACITOR 1μF, 25V
C225	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C226	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C227	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C228	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C229	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C230	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C231	NCF31CZ-104A	CAPACITOR 0.1μF, 16V
C232	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C233	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C234	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C235	NCB31EK-103A	CAPACITOR 0.01μF, 25V
C236	NCB31EK-103A	CAPACITOR 0.01μF, 25V
L201	YU41135-220K	COIL 22μH

≠Δ REF No.	PART No.	PART NAME, DESCRIPTION
L202	YU41134-331J	COIL 330μH
L203	PELN0749-Z	COIL, BURST TUNING
TRAP201	YU41325-4R4-Z	TRAP
WR1	YU42003	WIRE COVER
Δ X201	PEVB0469	CRYSTAL RESONATOR
CN201	YU41358-12-R	CONNECTOR

SECTION 6 TECHNICAL INFORMATION

6.1 EMERGENCY DISPLAY

Whenever some abnormal signal is supplied to mechacon CPU, the POWER LED will be flickered and an error number (E05, for example) displayed on the electronic view finder.

E. VF DISPLAY	Symptom	Mode when observed	Resulting mode
E 06	CAPSTAN FG input absent	EDIT	STOP
E 05	PB CTL PULSE input absent	EDIT	STOP
E 04	DRUM FF input absent	DRUM rotation	STOP
E 03	SUPPLY input absent	REC, PLAY, SEARCH FF	STOP
E 02	Mode control motor rotates for more than 10 sec. without shift to next mode.	UNLOADING	Mode continues
E 01	Mode control motor rotates for more than 10 sec. without shift to next mode.	LOADING	Mode continues

Emergency mode : Indication for 5 minutes, then power OFF
Port states : Same as Stop mode
Effective key : POWER
Shifted mode : Power OFF